Nomads of the Eurasian Steppes in the Early Iron Age



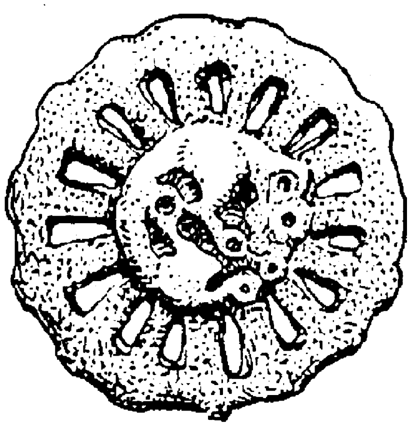
Edited by

Jeannine Davis-Kimball
Vladimir A. Bashilov
Leonid T. Yablonsky

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EDITED BY
JEANNINE DAVIS-KIMBALL
VLADIMIR A. BASHILOV
LEONID T. YABLONSKY



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For all those on both sides of the old Iron Curtain
who contributed to this work

The Scythian bronze vessel easily contains five thousand and four hundred gallons, and it is of six fingers' thickness. This vessel (so said the people of the country) was made out of arrowheads. For their king, whose name was Ariantas, desiring to know the number of the Scythians, commanded every Scythian to bring him the point from an arrow, threatening all who should not so do with death. So a vast number of arrow-heads was brought, and he resolved to make and leave a memorial out of them; and he made of these this bronze vessel, and set it up in this country Exampaeus.

Herodotus 4.81

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Foreword

Jeannine Davis-Kimball

I cannot remember when I first heard of the steppes and the high mountain ranges of Central Asia, Kazakhstan, and Mongolia. Fascinated by far-off places and people, it was not until 1985, as guests of Intourist, that my husband and I were able to visit Samarkand and Bokhara, important ancient cities that flourished along the Great Silk Road. In 1988, under the sponsorship of the Institute of Ethnography, Academy of Science of the U.S.S.R., we spent a month in Kazakhstan. I remember the magnificent faces of the 100 nationalities, many which could be seen, each selling their specific product, in the great Alma Ata bazaar. The yurts and houses revealed the beautiful hand-wrought textiles and felts, and the metal and leather objects which the nomads crafted for use in everyday life. The Kazakh dance, and their music made by plucking the dombra and bowing the kybis, revealed their ties to epic poets and shamans. In museums the juxtaposed works of contemporary artists and ancient treasures revealed a lifestyle unknown in the Western World.

Later that year in Moscow I met ethnographers, archaeologists, and historians from the then U.S.S.R. Academy of Sciences, who began sharing their knowledge and experiences with me. For the next several summers, after establishing the Kazakh / American Research Project, Inc. and a formal working agreement with the Kazakh Academy of Sciences, Institute of History, Ethnography, and Archaeology, we participated in the excavations of Saka kurgans in the vicinity of Issyk, near Almaty, as the city is called today. Later in the summers we also worked at the Medieval site, Kos Tobe, located near Djambul. We travelled the length of the ancient Silk Road in Kazakhstan from Otrar in the west to Taldy Kurgan in the east. In the spring we ate with the Kazakh herders on the steppes and in the summer with those in the high Tien Shan pastures. At Tamgaly, a cultic site dating from the Bronze Age and still venerated today, archaeologists guided us through thousands of petroglyphs that reveal belief systems which flourished over the millennia.

The Iron Curtain literally came down when we were in Moscow and the *putsch* occurred only two weeks after we had returned to the States. These events changed the course of my work in the territories of the former Soviet Union. In 1988 while in Moscow, I had met Dr. Leonid T. Yablonsky, an archaeologist and physical anthropologist at the Institute of Archaeology, who was excavating Saka burials in the lower Amu Darya River Delta. By 1990 Russian archaeologists could no longer excavate in "foreign lands." Yablonsky, in need of a new site, surveyed a large group of Sauro-Sarmatian kurgan cemeteries located south of Orenburg in the Kazakh steppes. He invited me to join those excavations the following year. During the course of our conversations I mentioned that there was a paucity of information on Early Nomad archaeology in Western languages. I suggested that he and his colleagues at the Institute of Archaeology might write about Early Iron Age archaeology in the U.S.S.R. for publication in English. Thus began the work which produced *Nomads of the Eurasian Steppes in the Early Iron Age.*

Written by 10 of the foremost Russian archaeologists, *Nomads of the Eurasian Steppes in the Early Iron Age* is an anthology of essays which seeks to provide English readers with an overview of the Early Iron Age archaeological research in the U.S.S.R. primarily between 1960 and 1990. The work is divided into five parts which reviews the Scythians, the Sauromatians and Sarmatians, the Saka, the Scythian-like cultures in Southern Siberia, and the Early Iron Age Mongolians. The Scythian material was written by Dr. Vladimir G. Petrenko, Prof. Anna I. Melyukova, and Dr. Valery S. Olkhovsky. The Sauromatian and Sarmatian historical and archaeological perspectives were prepared by Prof. Marina G. Moshkova, Dr. Vladimir V. Dvornichenko, Zoya A. Barbarunova, and Prof. Maya P. Abramova. Dr. Leonid T. Yablonsky authored the section on the Saka of Central Asia. Dr. Nikolai A. Bokovenko outlined the studies of the Southern Siberian nomadic cultures during Scythian times. And Prof. Vitali V. Volkhov covered the Early Nomads of northern Mongolia. With the exception of Dr. Bokovenko, who is with the Institute of Material Culture History in St. Petersburg, all authors and editor Vladimir A. Bashilov, are associated with the Russian Academy of Sciences, Institute of Archaeology located in Moscow. Short biographies of each of the contributing Russian authors and editors are found at the end of the Introduction.

The earliest discoveries within the great kurgans of southern Russia occurred before the advent of a formal archaeological discipline in that country. Many of the spectacular gold objects from the "tsar" kurgans, with their dynamic iconography, have consistently formed the corpus that has been published in Western languages. The intent of those who have worked on *Nomads of the Eurasian Steppes in the Early Iron Age* has been to focus on archaeology which reflects the general nomadic population and the mortuary finds not previously published in the West. With few exceptions, such as the great Arzhan kurgan in Tuva and a brief review of the late 19th and early 20th century excavations in southern Russia, this goal has been accomplished. It is the pottery, horse trappings, and weaponry that reflect the daily existence of the nomads who lived more than two millennia ago and that compose the vast majority of the illustrations.

Nomads of the Eurasian Steppes in the Early Iron Age covers the research during the years in which the most intense Soviet archaeological investigations took place. A historiography of the archaeology sets the stage in each region. A review of the earliest Russian, and then the subsequent Soviet excavations, identifies the pioneering archaeologists who developed this new discipline in the U.S.S.R. The contemporary authors of this work, whose materials cover the regions where the tribes that juxtaposed the cities and empires lived, use the literature of antique Greek and Roman authors as comparative materials in their interpretive processes. The contemporary authors have also presented many of the problems they have encountered in the reconstructions of early nomadic societies. It will be apparent, as coeditors Bashilov and Yablonsky have pointed out in the Introduction, that although many parallels exist in the various "Scytho-Siberian-Saka" cultures, at the same time there are incredible dissimilarities.

In the transliteration of most place names and cultures, adjectival endings have been retained. Because in Russian the adjectival endings vary according to gender, the ending of the adjective may vary. The exception to this rule of retaining adjectival endings are the two cultures, *Tagarskaya*, Tagar, and *Karasukskaya*, Karasuk, and some cemeteries or kurgans such as Kelermes belonging to the Scythian Culture in southern Russia. These spellings have been in common usage for several decades.

By necessity, the material in *Nomads of the Eurasian Steppes in the Early Iron Age* is complex for each cultural/geographic section in the anthology and covers a vast period in time and space. Central Asia, Middle Asia, and Inner Asia, regional geographic terminology used by the authors of this monograph, have not been consistently employed. In editing we have attempted to place lesser- known areas within the framework of the terminology used in the Western World. Russians usually, but not always, include Mongolia and

Xinjiang or western China in *Tsentral'naya Aziya,* Central Asia. In a broader sense they sometimes define Central Asia as the steppes that stretch between the Himalayan Mountains in the west, the Tien Shan Mountains in the south, the Altai and Sayan mountains in northern Mongolia, and the Bolshoi Hingan Mountains in eastern Mongolia. In Russian, *Srednyaya Aziya,* Middle Asia, usually defines the geographic region of Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, and Turkmenistan, although occasionally Kazakhstan is not included. Inner Asia is the term used by Owen Lattimore and others to include Outer Mongolia and Xinjiang, China.

The geography of the steppes, much of which is completely unknown to many Western students and scholars, includes lakes, rivers and river deltas, lowland-steppe, mountain-steppe, and forest-steppe regions. To assist in understanding the relationship between regions and locating the many archaeological sites, 19 maps have been included in the appropriate chapters. The maps assist in locating ecological and climatic zones and the rivers and mountains, all of which influenced the development of the Early Nomad cultures. They also pinpoint the archaeological sites under discussion. Previously maps with such detail have never been available in the West because during the Cold War the majority of archaeological sites were located in militarily sensitive regions.

To illustrate burials and cultural artifacts, 490 figures, the majority with multiple illustrations, are reproduced from original drawings made during the excavations. These have been placed as close to the expository text as possible. The Bibliography of nearly 900 citations is perhaps the largest published in English transliteration and translation to include the most up-to-date works on Early Iron Age archaeological research. Two indexes have been prepared. The first covers general topics and should assist the user in locating material related to the works of the authors in antiquity, archaeologists whose excavations are included but have no publications, geographical regions, archaeological sites, and text relating to the nomadic and sedentary populations. Some general concepts such as "female burials" or "cultic practices" have also been indexed. This index also can be used to locate the references to the Scythians, Sauromatians, Sarmatians, and Saka within a given time frame. The second index specifically lists the contemporary authors who are cited in the text.

One of the first Russian-American collaborative projects undertaken before the Cold War ended, *Nomads of the Eurasian Steppes in the Early Iron Age* is primarily a research tool. The combination of an immense quantity of material available, and at the same time material that constitutes only a survey of Russian archaeology, will undoubtedly create frustration. Readers will most likely find difficulty with the foreignness of the materials, pose innumerable additional questions, and be confounded by the ostensible lack of spatial and temporal boundaries. In spite of these complexities, this survey of Early Iron Age archaeology should serve as a source guide to assist further research that an increasing number of students are undertaking in this field.

More years have gone by than I ever anticipated since I first made my suggestion to Dr. Yablonsky. The scope of the final work is also much larger and complex than I ever envisioned. To prepare the roughly translated manuscript into an English text and format that would be as "user friendly" as possible has been a complex and challenging task. The typescript English manuscript fortunately came to me with the Russian original appended. One of our first problems was to change the sentence structure of this "Russified English" into a meaningful syntax for our readers. Finding appropriate translations for the more obtuse terms used for objects which were part of a 2000 year old nomadic society has been a constant challenge. The mechanics of converting this rough manuscript, maps with innumerable place names in Russian, and a myriad of line drawings into a cohesive hardbound book in the English language have been simplified by computer technology. Fortunately, over time this technology has so advanced that we have completely eliminated the old typesetting

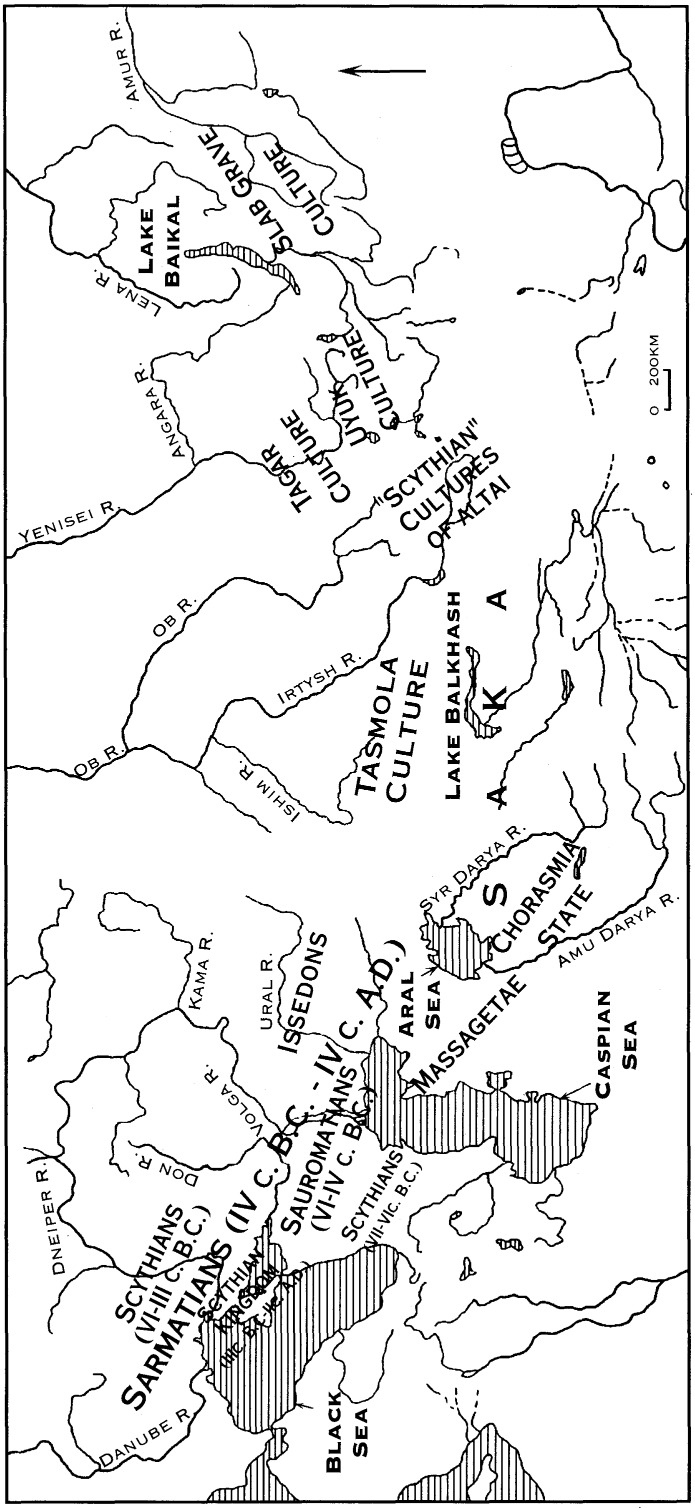
and layout complexities. The final electronic manuscript is being submitted to the printer in digitized format on one optical laser disk.

In addition to the 10 authors, an eleventh Russian scholar, Dr. Vladimir Bashilov, former head of the Scytho-Sarmatian Department of the Institute of Archaeology, has served as a most valiant coeditor, correcting translation errors, correlating texts, illustrations, and maps, and unifying the immense bibliography. Dr. Yablonsky, serving in a dual position and while wearing his editorial hat, has been my pivotal contact with the authors. He has also reviewed portions of the manuscript, translated the bibliography, and advised me on many occasions.

Besides our Russian colleagues, many others have worked toward the publication of this work. Dr. James Vedder, Los Altos Hills, assisted in preliminary editing. Student interns at the University of California, Berkeley, have contributed an immense amount of effort and time in preparing the textual and graphic materials. As a reward each has increased his/her knowledge, not only of culture and geography as they prepared texts and graphics, but also of the very salable computer techniques not normally taught in the classroom. Karen Scipi, an English major who first came as an intern and later stayed on out of devotion to the project, has typescript edited all the material with infinite patience. Sarah Anderson, from the Anthropology Department, with assistance from Renée Dunn, a Japanese major who is a master at producing perfection, diligently and with great patience digitized the maps and assembled them with the English translations of place names. Renée also divided many pages of illustrations and marked their location in the text. Akiko Thomson, an Anthropology major and Olympic swimmer, prepared the lists of maps and illustrations, and formatted the complex bibliography. Jennifer Tiranti, a Russian language major who has an avocation for archaeology in the steppes, transliterated the extensive bibliography. The assistance of Margaret Law and Mercedes Trujillo, who have worked with me for several years, has been invaluable. Prof. Barbara McLauchlin solved problems associated with the Classics, Prof. Esther Jacobson, and Dr. James Vedder each read sections of the manuscript and provided positive suggestions. Prof. Alton Donnelly proofread and made cogent corrections on place name and in the Bibliography. My husband, Warren B. Matthew, who has accompanied me on all the adventures, constantly encouraged and sometimes pushed me in my endeavors to bring lesser-known information about the Scytho-Siberian-Saka world into the English language.

To each we are most grateful as *Nomads of the Eurasian Steppes in the Early Iron Age* would never have been completed without such devotion to this cause, perseverance for as much perfection as possible, and the immense contribution of time and knowledge.

Berkeley, California
September 1995



Map 1. Eurasian Steppes in the Scytho-Sarmatian Period

INTRODUCTION

VLADIMIR A. BASHILOV
AND
LEONID T. YABLONSKY

From the point of view of natural conditions, the steppe zone of Eurasia is a relatively monotonous, woodless landscape. The basic ecological characteristics unite such widely separated regions as the territory of modern Hungary in the west, and the plains of Mongolia far to the east. In the north the steppes are defined by tracts of Eastern European forests and the Siberian taiga. In the southwest the Black Sea coast and the Caucasus provide steppe boundaries while farther east, the Caspian and Aral seas, and the sands of the great Central Asian deserts as well as the Pamir and Sayan mountain ranges define the more southeastern boundary.

In the 2nd millennium B.C., the period immediately preceding the emergence of the Scythian and Saka tribes in the arena of world history, the vast expanse of the steppe was inhabited by Bronze Age populations of diverse genetic origins. These peoples had complex economies, being engaged in hunting, river fishing, and gathering. Domestic animals were raised and in some places agriculture was practiced with the use of primitive irrigation systems. However, neither animal breeding nor agriculture was the main force in their economies. The similarities observed in their material cultures were mostly due to parallel ecological conditions, similar levels of economic development, and the absence of serious geographic obstacles which might impede direct interaction between neighboring groups.

The results of archaeological studies conducted on the 2nd millennium Bronze Age settlements and cemeteries have shown that the steppes of Eurasia were inhabited by two kindred population groups. These are represented in archaeology by two major cultural and historical communities: the Timber-Grave and Andronovo cultures. The zone of their initial contacts seems to have been the Volga-Uralian region and the semidesert areas south of the Aral Sea. The formative process of the Indo-Iranian language took place in this contact zone.

During the Bronze Age iron artifacts were not used. Tools, implements of labor, and decorative objects were made of stone, bone, wood, and bronze. Archaeological data show that in the 2nd half of the 2nd millennium B.C. the steppe populations had begun to shift first within their traditional ecological zone, and then moved far beyond their original boundaries. Some elements of the material culture characteristic of the steppe appeared in diverse regions extending from the Caucasus Mountains to the southern regions of Uzbekistan, Tajikistan, and Turkmenistan. According to archaeologists, the Indo-Arians originated in the steppes. Some archaeologists also suggest theories of migration such as, the long distance southward movement of peoples from the steppes to northern India and the Iranian plateau in the late 2nd millennium B.C. Other archaeologists disagree with this point of view which continues to be a scientific debate today.

Paleogeographical studies provide material which suggests that among the causes for these movements was increasing aridity, especially in the eastern regions of the steppes. Large masses of inhabitants pushed outward in search of lusher pastures for their cattle. Archaeologists have dated the earliest finds of horse harness elements to approximately the same period. At least by the Late Bronze Age, steppe dwellers could ride horses and were able to traverse considerable distances.

An active life caused by ceaseless movements in the search of new habitation gradually conditioned a portion of this population to nomadic cattle-breeding which became specialized. This process developed at different rates and in an asynchronous manner over the vast steppe expanses. In some regions, especially where riverine conditions did not undergo significant changes, the traditional complex form of economy survived. However, by the 8th-7th centuries B.C. specialized cattle-breeders had determined the main direction for the rapid ethnogenetic, political, and general historical development in the steppe and far beyond. During these two centuries, various unions of cattle-breeders became unusually active. At this time the nomads became acquainted with the Eurasian steppes and began to use iron implements. The historical era was now denominated the "Early Iron Age."

Even during the initial stage the Early Iron Age was marked by a sharp rise in the social development of the cattle-breeding communities which were already forming a class structure. This phenomenon was accompanied by a noticeable increase in material production and spiritual culture. It is possible to observe the rapid improvements in horse harness design and in the techniques of arms production. The assemblage of the armament types became more diverse. The ideologies of the nomads were reflected in the various artifacts decorated in the traditions of the so-called "Scytho-Siberian animal style." An essentially undeviating burial tradition emerged in which a deceased warrior was accompanied by a characteristic set of grave goods including armament and harness elements. Some of these were invariably decorated with animal style elements.

In Russian literature this complex of accompanying artifacts, a style constant in time and space, has been termed the "Scythian triad" (Grakov, Melyukova, 1954). The triad was given the name "Scythian" because the first such artifacts of this type were archaeologically registered in graves which most probably belonged to the historical Scythians described by Herodotus, the ancient Greek historian and geographer.

Excavation of Scythian graves in the steppes north of the Black Sea began in the 18th century A.D. and continued for the next two centuries. Within the kurgans an extremely rich variety of cultural materials, most splendid in their artistic ornamentation, were found. These burial artifacts included numerous bronze and gold items. The results of these excavations provided a powerful impetus for the development of archaeology in Russia. It was at this time that Scythology became a specialized branch in Russian archaeology.

The famous historian M.I. Rostovzev was the first to propose some important general conclusions based on the materials accumulated in the course of the archaeological investigations to the beginning of the 20th century A.D. Later M.I. Artamonov, B.N. Grakov, A.I. Terenozhkin, and other scholars made Scythology a part of archaeological science in Russia and the Ukraine.

The antiquities belonging to the Scythian period which came from the eastern Trans-Uralian steppe became first known in Europe as a result of the edict of Peter the Great (1672-1725). Upon his order, antiquities including accidental gold artifact finds dating to the Early Iron Age were collected and housed in St. Petersburg.

Large scale scientific excavation of Early Iron Age monuments in Southern Siberia and Central Asia began at a later date. Contrary to earlier opinions, the earliest archaeological expeditions in the various eastern steppe regions, headed by K.A. Akishev, A.N. Bernshtam, M.P. Gryaznov, M.K. Kadyrbayev, S.I. Rudenko, and S.P. Tolstov have revealed that the so-called "Asiatic Scythia" was certainly not a remote and backward periphery of the Scythian world. The Asiatic Scythians, or the "Saka" of the Old Persian written sources, were

the creators of a powerful and original material and spiritual culture. As a result of excavations in the eastern steppes, the hypothesis was formulated which suggests that European Scythians arrived in the Black Sea steppes from the heart of Central Asia, and that it was in the latter region that the European steppe Scythians had developed culturally (Terenozhkin).

This hypothesis is supported by three sets of facts. First, Herodotus reported that the Scythians had come to reside in the Black Sea area from the heart of Asia. Second, it was established archaeologically that some harness elements, typical of the European Scythians material, are dated earlier in the Asiatic burials than the European. Third, the Bronze Age European steppe population did not have the zoomorphic depictions which later were diagnostic of the typical Scythian "animal style" ornamentation. In contrast, in the eastern steppes from the Yenisei River basin south into the Mongolian plains, some elements of the "animal style" are dated to the Late Bronze Age. These are special features found of animal depictions which were carved on stone stelae known today as the *olenniye kamni.*

Among scholars the theory of the eastern origins of the Scythians has both supporters and opponents. The opponents believe that Scythians were culturally indigenous to the Black Sea steppes, and genetically linked to the local Late Bronze Age populations (B.N. Grakov). The data of paleoanthropology do not contradict this assertion (G.F. Debetz). As for the "animal style" elements found in their art, according to adherents of the indigenous theory, the Scythians borrowed their principle motifs while on military campaigns to the Near Eastern countries, and after returning home, modified the motifs to conform to their specific ideological traits.

An additional theory which favors a polycentric origin of the early steppe nomadic cultures was formulated relatively late. This theory postulates an independent development of local variants of the nomads' culture (M.P. Gryaznov). The transformations which were responsible for the development of these different cultures took place against a background of relatively stable contacts between neighboring groups of nomads. Within this theory, the principle animal style themes developed both independently and within the influential spheres of various centers. Therefore, within diverse steppe regions such influences could be considerably different (D.S. Rayevsky).

Some cultural artifacts from the excavations in the North Black Sea area, dating to the 10th-8th and 8th-7th centuries B.C., have lead to the conclusions that during these periods the Eastern European steppe cultures were considerably affected by strong stimuli from nomads residing east of the Volga River (V.Yu. Murzin). If this point of view is correct, it is possible to explain the marked typological similarity between some material cultural elements of the Early Iron Age populations residing in both the eastern and western steppe zones. The interpenetration of such elements became possible only because the steppe cattle-breeders had inherited kindred cultural and historical traditions from the previous Bronze Age. They had also reached the same level in their socio-economic development. In addition, they lived in essentially similar ecological conditions which were largely responsible for specific economic features and for the course of their military-political movements.

In summation, at the present time archaeological studies have shown that from the Early Iron Age the territory of the Eurasian steppes and of the adjacent forest-steppes were home to many cultures whose similarities warrant unifying them into the original "Scytho-Siberian world." The widespread "Scythian triad" which is found over the entire steppe territory serves as the major unifying factor. However, bronze cauldrons and *olenniye kamni* (stone stelae carved with depictions of deer) must also be included among the unifying elements. On the whole these elements are reminiscent of a "cultural horizon," a phenomenon well known in the Americas, especially in Peruvian archaeology.

The indubitable existence of the archaeological phenomenon of the "Scytho-Siberian world" is interpreted by some researchers as an indication of the "unity" between the steppe populations in Eurasia (A.I. Martynov and others). A detailed analysis of the material culture shows, however, that even the "horizon markers" mentioned above are far from being identical. In spite of the generalized resemblance each displays, quite specific complexes are found in locales. Burial traditions, pottery, and other important archaeological categories are completely distinct in all the archaeological cultures that make up the "Scytho-Siberian world."

When compared, these cultures display unequal degrees of similarity and in different locations within the steppe zone recognizable groups have cultural complexes which are more cohesive. In general, the "Scytho-Siberian world" that stretched from the Danube River to Central Asia and formed, as D.S. Rayevsky has expressed, a "cultural continuum" where adjacent groups have more similarity between themselves than with more distant groups. Within the boundaries of this continuum, the inhabitants of a few distinguishable zones had stronger interrelationships that lasted throughout their existence. These zones include the Black Sea steppes and the North Caucasus, the lower Volga River and the southern Urals, central and eastern Kazakhstan together with the steppe regions of Central Asia. Further to the east, the Altai, south Siberian, and Mongolian cultures were also closely bound.

Specialists hold different opinions concerning the historical interpretation of the archaeological phenomenon of the "Scytho-Siberian world." An extreme point of view interpreted this world as a reflection of the cultural and historical unity of early nomads who lived throughout the vast steppe zone. This point of view postulates the existence of a "nomadic civilization" which included state formations corresponding to cultural groups (A.I. Martynov).

The opinion of the majority of researchers, however, is that the degree of unity within the "Scytho-Siberian world" should not be overstated. The predominant point of view is that the population of the different steppe zones was not closely related from an ethnic point of view. On the one hand, each population had its own history. On the other, populations undoubtedly maintained close contacts with both their immediate neighbors and with those further distant. The most common explanation for the fact that similar traits spread so widely is connected with such factors as: the existence of the same type of economics or nomadic pastoralism, a similar degree of social development or the formation of a social stratum of horsemen warriors, and the closeness of the ideological systems reflected in distinct variations in the "animal style" art. The contact the steppe nomads maintained with contemporary civilizations of ancient Greece and the Near East was also extremely important.

The great kurgans containing chieftains' burials laden with gold luxury items, accompanied by graves of sacrificed servants or slaves, as well as the much more modest kurgans of the common warriors, disclose the presence of a highly developed system of property and social differentiation. Nevertheless, neither archaeological nor written (if any) sources provide any grounds to believe that on the territory of the "Scytho-Siberian world" state formations existed. It is only in the Crimea that it is possible to speak with certainty about the existence of a Late Scythian state. The appearance of this specialized state is associated with a sharp decrease in territory occupied by the tribes, with a sedentary lifestyle, and with the emergence of urban centers resembling Scythian Neapolis.

All of these interesting problems, many of which have no direct or simple answers, are reflected in this work prepared by the group of specialists.

Prof. Maya P. Abramova (author) has spent many years in the North Caucasus studying the history of Sarmatian tribes and their interaction with local populations. She is the author of many articles and books devoted to these topics.

Zoya A. Barbarunova (author) is a young post-graduate scholar at the Institute of Archaeology, Russian Academy of Sciences. She is applying computer techniques to the study of Sarmatian burial traditions.

Dr. Vladimir A. Bashilov (editor) was educated as a Scythologist but subsequently studied the archaeology of Andean countries for many years. Recently he headed the Scytho-Sarmatian Department of the Institute of Archaeology, Russian Academy of Sciences, Moscow.

Dr. Nikolai A. Bokovenko (author) works at the Institute of Material Cultural History, St. Petersburg, and is well known for his studies of southern Siberian antiquities.

Dr. Jeannine Davis-Kimball (editor), founder and executive director of the research foundation, Kazakh/American Research Project, Inc., has excavated Early Iron Age kurgans in Kazakhstan and the southern Ural steppes since 1987.

Dr. Vladimir V. Dvornichenko (author) has devoted much time to the study of the antiquities of the pre-Scythian period in the Black Sea steppes. Presently he is studying Sauromatian sites in the lower Volga River region. He heads major archaeological expeditions in the area.

Prof. Anna I. Melyukova (author) is a prominent specialist in Scythian archaeology who presently works on the problem of Scythian influence in central Europe. She has authored *Vooruzheniye skifov* (*Scythian armament*) and *Skifiya i frakijskij mir* (*Scythia and the Thracian world*) among other books.

Prof. Marina G. Moshkova (author) is a leading specialist in the study of Sarmatian tribes. She is the author of *Pamyatniki prokhorovskoi kultury* (*Monuments of the Prokhorovokaya culture*), *Proiskhozhdeniye rannesarmatokoi (prokhorovskoi) kultury* (*Origin of the early Sarmatian (Prokhorovskaya) culture*), and numerous articles on Sarmatian archaeology. Prof. Moshkova is the current head of the Scytho-Sarmatian Department of Institute of Archaeology, Russian Academy of Sciences.

Dr. Valery S. Olkhovsky (author) has studied Scythian stone sculpture and burial traditions and written two monographs on these topics. He has excavated Scythian kurgans in the Crimea and is presently studying the Baite sanctuary on the Ust-Urt plateau in northwestern Kazakhstan.

Dr. Vladimir G. Petrenko (author) has headed a major expedition from the Department of Scytho-Sarmatian Archaeology for a number of years and engaged in large-scale excavations of Scythian kurgans in the North Caucasus.

Prof. Vitali V. Volkhov (author) has headed a team of Soviet-Mongolian archaeological excavations in Mongolia. His immediate scientific interests encompass the cultic art monuments of the ancient inhabitants of the Central Asian steppes.

Dr. Leonid T. Yablonsky (editor and author) fruitfully combines his professions of archaeology with that of physical anthropology. He has excavated numerous Early Iron Age kurgans in the Aral Sea region. Currently he is co-director of the collaborative Russian-American excavations in the Orenburg district. In addition, he is conducting extensive craniological studies on the ancient populations of Central Asia and Kazakhstan.

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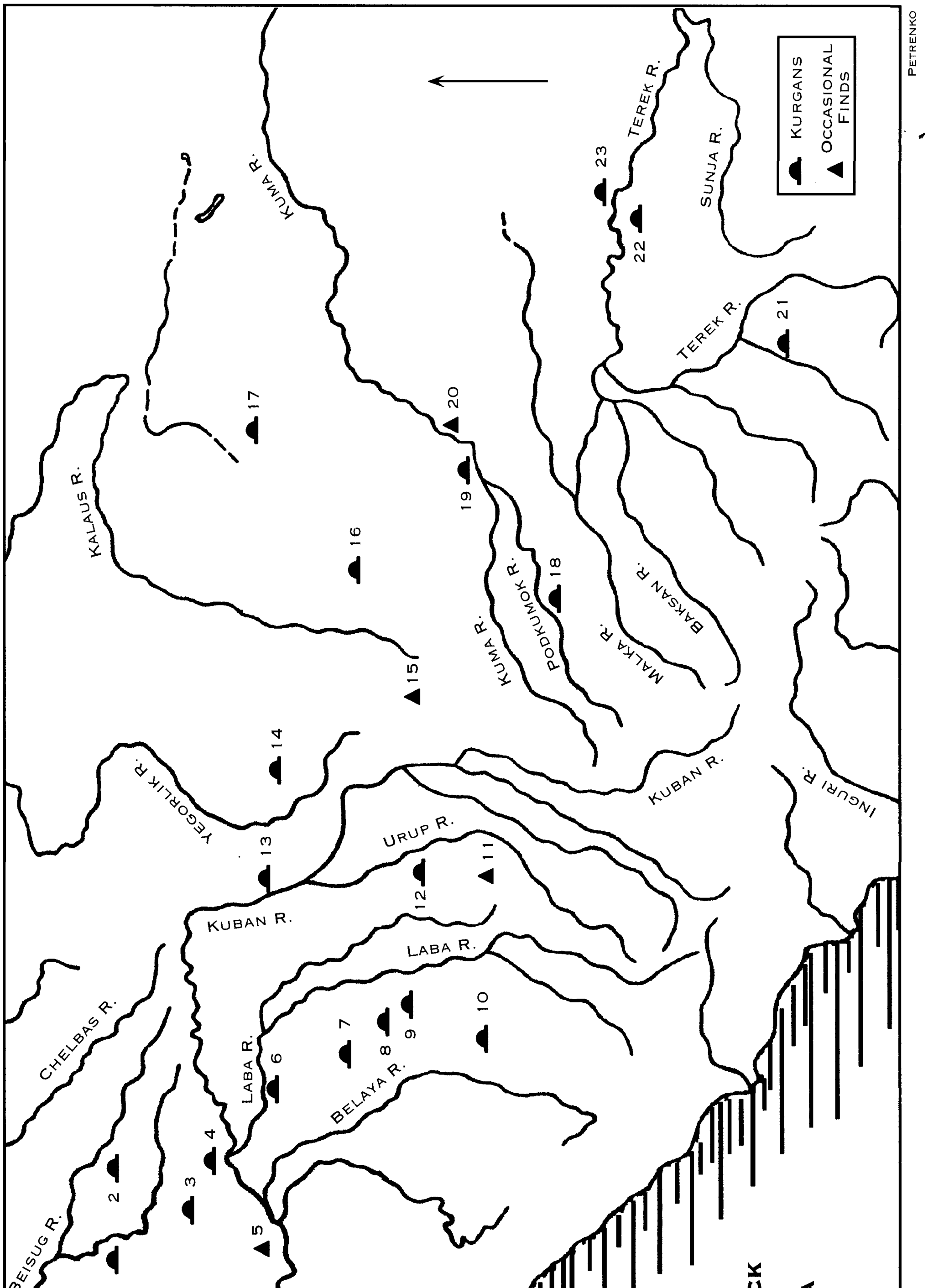
The Scythians



Monuments

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6 - Ulyap (Ul'skii aul)
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13 - Kovalevskoe
14 - Stavropol'skie kurgany
15 - Alekseevskii
16 - Krasnoye Znamya
17 - Sotnikovskoe
18 - Lermontovskii razyezd
19 - Novozavedennoye
20 - Otkaznoe
21 - Nartan
22 - Gvardeiskoe

Key to Map 2. Scythian Sites in the North Caucasus



Map 2. Scythian Sites in the North Caucasus

CHAPTER 1

SCYTHIAN CULTURE IN THE NORTH CAUCASUS

VLADIMIR G. PETRENKO

The territory north of the Caucasus Mountains embraces three geographical regions (Map 2). Predominant in the western region of the North Caucasus are steppe grasslands with fertile black topsoil irrigated by the Kuban River and its numerous tributaries. In the central region of the North Caucasus are found the Stavropol Hills with their broken relief and micro geographical zones varying from forest steppe to feathergrass and tipchak grass to steppes. The largest of the rivers irrigating the area are the Egorlyk and the Kalaus rivers and their tributaries. The valleys are covered with big broad-leaf forests and populated with oak groves. In the eastern North Caucasus the Tersko-Kumskaya lowland has a drier, hotter climate. Here the semi-desert vegetation includes wormwood and some feathergrass (Gvozdetsky, 1954; Okhon'ko, 1988, pp. 243-246).

The tributary system and the relief diversity aided in agricultural development in these areas and offered an opportunity for cattle breeders to graze herds over the North Caucasus throughout the year and to maintain herds indoors during the colder seasons of the year as necessary.

The early 1st millennium B.C. was characterized by the formative development of nomad pastoralism throughout the Eurasian steppes. This life-style was conducive to population mobility and to the formation of military units necessary to protect herds and to conquer new territories. The dominant position occupied by these peoples in the ecological niche they frequently shared with neighboring agrarian tribes is a result of their nomadic military superiority and is thought to have originated in the North Caucasian steppes as early as the 8th century B.C. This occurred concurrently with the advance of Scythian nomad tribes from the steppes east of the Volga River and Caspian Sea to the North Caucasus, including the Kuban region (Machinsky, 1971; Khazanov, 1975, p. 203ff; Leskov, 1981, p. 64ff). Upon their arrival to the North Caucasus, the nomadic steppe tribes met a multi-ethnic sedentary population whose culture in the central part of the North Caucasus is described as Kubanskaya and in the western areas as Old Meot. The interaction of the heterogeneous steppe tribes with the local population determined the cultural origins of the Scythian tribes in the Kuban River area and in the central and eastern regions of the North Caucasus.

The earliest period of Scythian history is the least studied. Moreover, this era is reflected inadequately in written sources such as Assyrian documents. Some meager bits of information are supplied by biblical prophets and a few fragments are found in the works of Greek and Roman authors (Latyshev, 1947, 1948). A more complete description of Scythia has been recorded by Greek

authors of the 5th and 4th centuries B.C. and foremost by Herodotus. Like the other authors of his time, Herodotus knew that Scythia stretched from the Danube River to the Don River. The Caucasus are mentioned by him only in connection with his description of the Scythian campaigns against the Near East (Herodotus IV, 12). The legends recorded by Herodotus about the origins of the Scythians relate to the territories of the northern Black Sea region. Herodotus was inclined to agree with traditional documentation which noted that the Scythian tribes had arrived from Asia. Under pressure from the Massagetae tribe they crossed the Araks River and invaded the former land of the Cimmerian people who had abandoned this area already. In pursuing the Cimmerians across the North Caucasus, the Scythians reached the Near East while "having the Caucasus on their right side" (Herodotus IV, ll-12). A similar version of this tradition is reported by Diodorus Siculus, a 1st century B.C. author who, according to researchers, used some earlier sources independent of Herodotus. According to Diodorus, Scythians "lived in very small numbers at the Araks River" but it was already in ancient times "that they gained for themselves a country in the mountains up to the Caucasus, in the lowland on the coast of the Ocean (Caspian Sea) and the Meot Lake (Azov Sea) and other territories up to the Tanais River (Don River). Born in that land from the conjugal union of Zeus and a snake-legged goddess was a son Scyth who gave the name Scythian to the people." His descendants were named Pal and Naps and were the ancestors of two congenetic peoples - pals and naps. They won for themselves a country "behind the Tanais River up to Thracia and, having directed their military actions in the opposite direction, spread their rule up to the Egyptian Nile River" (Diodorus II, 43). Some odd pieces of information by ancient authors witness with certitude that even in the period before the time of Herodotus the Scythians were placed traditionally in the Caucasus (Rostovtsev, 1925, p. 17; El'nitsky, 1961, pp. 54-102).

The development of viewpoints concerning the Scythians in the North Caucasus is connected closely with the success of field archaeology that began with the discovery of the richest kurgans in the Kuban area. N.I. Veselovsky was the first scientist to carry out scientific excavations in the Kuban area. In particular, he excavated the Kostromskoi Kurgan as well as a number of Kelermes and Ulsk kurgans and described them as belonging to the Scythians. An outstanding student of ancient and Scythian antiquities, Academician M.I. Rostovtsev analyzed historical and archaeological sources that have substantiated the presence of Scythians in the North Caucasus during the early period of their history. Influenced by scientific research of the time, M.I. Rostovtsev considered the Scythian culture to be that of the upper ruling class of society and further noted that eastern elements were predominant. As the materials were too scanty to describe the culture of the lower classes of the society, he put forward a mere supposition about two different cultural structures which mingled partially with each other (Rostovtsev, 1925, p. 308). In describing the Scythian culture of the 6th to 3rd centuries B.C. as being homogeneous over the vast territory from the Dniester River to the Ural River, Rostovtsev saw its basic specificity in the blending of components originating from the local prehistoric culture, in a Greek culture, and a culture of Asiatic origin. He also included some cultural elements of the Caucasus as well as northeastern influences from western Siberia (Rostovtsev, 1925, pp. 302-303). He pointed out that the most ancient Greek traditions do not limit Scythia to the steppes west of the Don River but signify that the people of Scythia were in close contact with the Caucasus and Transcaucasus (Eshil, Sophocles) regions. Rostovtsev expressed the interesting idea that "it was relatively late that the steppes near the Dnieper River became the focus of the Scythian might. Before that time the Scythian statehood and culture had been developing in the Kuban steppes in close contact with the Crimea, Caucasus and Greek cities at the Caucasian seaboard of Taman and Crimea" (Rostovtsev, 1925, p. 458).

In later years the majority of researchers have accepted the idea that the Kuban kurgans belonged to the Scythians (Smirnov, 1935, p. 27; Grakov, 1947, p. 7; K. Smirnov, 1952, pp. 6-10; Il'inskaya, 1966, pp. 63-68). It was not until the 1940s that the idea was called into question by N.V. Anfimov who believed that the bulk of the population in the Kuban area were Sauromatians and Meots, and that the presence of Scythian elements there was only a reflection of the Scythian movement across the Kuban territory (Anfimov, 1949, pp. 25-260). Having supported N.V. Anfimov's thesis that "there are no direct proofs of the presence of the Scythian element proper in the Kuban," B.N. Grakov and A.I. Melyukova commented on the diversity of ethnic groups in the Kuban. They also believed that the kurgans of the 6th century B.C. belonged to aristocracy of both sedentary and semi-nomadic tribes. They thought that an earlier Scythian tribe had blended with the indigenous Sindo-Meot population (Grakov, Melyukova, 1953, pp. 91-92). According to M.I. Artamonov, the Kuban kurgans belonged to the Cimmerians who returned with the Scythians from the Near East (Artamonov, 1974, p. 62).

Extensive archaeological excavations which began in the 1970s offered a new perspective. Excavations were conducted in the Kuban area at the Kelermesskii burial ground by archaeologists from the State Hermitage under the leadership of L. Galanina and A.Yu. Alekseyev (Galanina, 1983a; Galanina, Alekseyev, 1990). Archaeologists from the State Museum of Arts of the People of the East under the leadership of A.M. Leskov excavated sites at Ulyanskii and other cemeteries in the Kuban area (*Sokrovischa kurganov Adigeia, Treasures of Kurgans of Adigeia,* Moscow, 1985, hereafter *Treasures...,* 1985). In addition, archaeologists from LOIA and the Krasnodar Museum also excavated in the Kuban area (Rezepkin, 1981, pp. 115-116; V.S. Bochkarev, 1981; Nekhayev, 1978, 1985, and others). This research offered new opportunities for in depth studies of the culture of the steppe people and of the contacts between indigenous populations and the Scythians. Today a majority of students support the opinion that the Kuban kurgans belonged to the archaic period Scythian people but also believe that the complex process of interaction between different ethnic groups in that area has not been studied adequately.

In the central region of the North Caucasus excavations of Scythian monuments found on the steppes began late. The first evaluation of steppe influences was written by students from the Caucasus. Their opinions were expressed most fully by E.I. Krupnov. He noted that northern steppe elements penetrated into the North Caucasus as early as the 8th century B.C. From the 7th to 6th centuries B.C. ties between the indigenous cultures and the nomads grew more tangible and resulted in the appearance of monuments left by a mixed culture. E.I. Krupnov assumed both the seasonal presence of the nomadic Scythians in the Caucasus as well as their having settled in certain areas. The information on which Krupnov's latter thesis was postulated was based on the excavations of sub-kurgan graves. These graves contained supine skeletons oriented west, skulls with brachicephalic traits characteristic of the steppe Eurasian types found in cemeteries such as those at Nesterovskii, at the Achikulak village, and at Mozdokskii. Krupnov believed that the carriers of all of these innovations were "Scytho-Sauromatian tribes" (Krupnov, 1960, pp. 387-391). This was the description which he used to denote the conglomeration of tribes that moved as a wave to the Middle East.

According to Krupnov, the penetration of Scythians into the Caucasus proceeded across the Azov Sea and Kuban River region. He thought that the Sauromatians had come from western Kazakhstan and had entered the Caucasus region crossing the steppes of the northwestern Caspian Sea (Krupnov, 1960, p. 389).

The first general evaluation of the early Scythian monuments in the North Caucasus was offered by A.A. Iessen who subdivided the Scythians into two groups: the pre-Kelermes of the sec-

ond half of the 7th or at the turn of the 7th to the 6th century B.C., and the Kelermes of the first half of the 6th century B.C. He noted the indisputable connection between these cultures and those of the 8th to 7th centuries B.C., or the preceding period. He also believed that the formative period of the Scythian culture took place between the 8th and 7th centuries B.C. However, the first large union of tribes in the south of Russia was headed by the Cimmerians. At the turn of the 8th to the 7th century B.C. the Cimmerian people were supplanted partially by newcomers from the East. At that time the Scythian entity began forming there (Iessen, 1953).

Thus, by the end of the 1960s the entire range of questions pertaining to the presence of Scythians in the North Caucasus had been outlined.

A considerable contribution to the problem of the Scythian presence in the North Caucasus was made by V. Vinogradov (Vinogradov, 1972) who analyzed to the smallest detail of the written sources and archaeological materials available about this time period. He determined which were the nomad monuments and recognized the elements of steppe culture found in the remains of the indigenous population. Moreover, he determined the character of ethnicity of the steppe people. V.B. Vinogradov's point of view was similar to that of E.I. Krupnov's. He assumed the presence in the northeastern and central parts of the North Caucasus of Sauromatian nomad camps in the 7th to 5th centuries B.C. According to Vinogradov, the Scythians crossed the Caucasus in the 7th century B.C. In the 6th century B.C., on their way back across the Caucasus, they left behind some hordes which were assimilated rapidly by the local population (Vinogradov, 1972, pp. 10-80). Later Vinogradov joined those scholars who believed that the Scythian presence in the North Caucasus had been permanent (Vinogradov, Dudarev, 1983, p. 49; Murzin, 1976; Petrenko, 1983; Il'inskaya, 1983). However, Vinogradov again reverted to the view that the steppe monuments in the central and northeastern parts of the North Caucasus belonged to the Sauromatians (Berzin, Vinogradov, 1988, pp. 28-32). These questions continue to be asked each time a new kurgan is found (Batchayev, 1985, pp. 53-54; Kerefov 1986, pp. 42-44; Kerefov, 1988, pp. 28-102). However, up to the present time there is no detailed study of the entire range of materials to support this thesis. References have been made to traits typical of the tribal culture conventionally described as Sauromatian. However, in the written sources the tribal name Sauromatian is connected either with the migration of Scythians or with a new formation which included Scythians and the recently arrived Amazon tribe. The Sauromatians are also placed geographically in the Tanais and Don region. (Diodor II, p. 43; Pliny IV, 110-117; Herodotus IV, 110-117). Taking the archaeological cultural material into account, the formation of the Sauromatian burial tradition and its accompanying complex of artifacts date to the mid-6th century B.C. (Zhelezchikov, 1987, p. 38) while in the Caucasus a wide range of monuments date to the 7th century B.C.

Substantiation that the North Caucasian monuments belong to the Scythian culture and the role they played in the history have been provided in a number of studies (Murzin, 1978, 1984, 1990; Il'inskaya, Terenozhkin, 1983; Makhortykh, 1990).

Recently discovered kurgan cemeteries in the central part of the North Caucasus, particularly those at the Krasnoye Znamya farmstead near Novozavedennoye and Nartan villages, reveal that the burial mounds had been used repeatedly for up to 200 years. Those near Nartan have a distinct horizontal stratigraphy that has made it possible to document the permanent presence of steppe population in this territory from the early 7th century B.C. Excavations also reveal the early origin of the cemeteries, and the continuous development of many forms of burial structures and accompanying artifacts within cemeteries as well as within the area as a whole (Petrenko, 1983, 1989, 1990; Batchayev, 1985).

Using the new data, a number of researchers have supported Rostovtsev's thesis that the center of Scythian unification in the 7th to 6th centuries B.C. was located in the North Caucasus. In the opinion of V.Yu. Murzin and E.V. Chernenko this is the locale of the "Ashkuz kingdom" of the Assyrian sources (Murzin, Chernenko, 1985, pp. 229-230). They regard the populations of Transcaucasus and the Near East as the main objects of Scythian exploitation (Murzin, Chernenko, 1989, p. 25). This point is hard to agree with because the main objective for Scythian exploitation in the North Caucasus was its local population. These people were the carriers of the Koban and Meot archaeological cultures who supplied, in addition to the archaeologically perishable agriculture produce, articles of their handicraft industry such as clay and bronze vessels, and many arms, bridles, and harness items. The few artifacts which were embossed objects and which can be described as Caucasian and Near Eastern, were either military tribute or items of commerce.

Extremely few kurgans dating from the 8th to 7th centuries B.C. have been excavated in the Kuban area. Being mostly of entrance type and with poor sets of accompanying artifacts, the ordinary graves of that time are concentrated in the northern part of the territory extending towards the Don River region. Solitary military grave pits with wooden and cane floors demonstrate an indubitable connection with graves dating to the subsequent period. The richest graves of this time and those of the subsequent period are found in the trans-Kuban area. A marquee-type wooden structure arranged over a 12 x 7 m pit was covered under in the Aushkhitu kurgan located in the vicinity of aul Kabekhabl in Adigeia. Although the burial had been robbed, some Novocherkassk-type artifacts and remains of a chariot with 4 horses' harnesses have survived. The excavator, V.R. Erlikh, regards this complex as belonging to a member of the highest nobility of the ancient Iranian society such as was mentioned in *Avesta* as those "standing on a chariot." In this particular case, though, this member is someone who belonged to the elite Scythian society (Erlikh, 1990, pp. 59-61).[1]

During the 7th to 6th centuries B.C. the number of burial kurgans increased greatly. In the trans-Kuban region the vast majority of the kurgans belonged to the aristocracy. Because of imperfect excavation techniques not all of the burial traits have been recorded. Nevertheless, it is noted that a majority of the burial structures have a marquee-type construction of branches, boards, and cane arranged over the grave and supported by the ring-shaped bank of earth thrown from the grave pit. The grave pit itself has several ledges. Six to twenty poles supporting the ceiling also divided the burial pit into several compartments. Each compartment held distinct artifacts such as the human bodies, accompanying artifacts, and horses (Fig. 1a). The size of the burial pits varied depending on the social rank of the dead, from 41 to 114 m^2 in the Kelermes kurgans (OAK for 1904, p. 91) to 14 to16 m^2 in the Ul'skii and Ust-Labinskii burials (OAK for 1903, p. 67; OAK for 1910).

Unplundered kurgans have not been excavated professionally. Some of the artifacts have been stolen and the data about the excavations is incomplete. The dead were buried supine, orientated north and south (Shultz, OAK for 1903, p. 169). The remaining burials were destroyed. However, 7 to 24 bridled horses were buried on the grave ledges. Next to the horses were finials that probably decorated carriages or chariots. L.K. Galanina has noted a distinct differentiation of groups of horses in the kurgans based on the value of the harness materials. Her preliminary explanation for the different types of materials is "social stratification of the horses' owners." She dated the artifacts from the mid-7th to the early 6th centuries B.C. She identified the origins of the horse harnesses and has demonstrated the influence from the Near Eastern battle bridle decorations. Galanina found pre-Scythian art from southern Russia and motifs from the Early Iron cultures of Central Asia. She also identified production centers of certain items both in the Kuban area and in Transcaucasus (Galanina, 1983).

The dead were buried not only in pit graves but also on the ancient ground surface in wooden structures with marquee-type ceilings which had been scorched (Fig. 1 b-c; OAK for 1897, p. 11), and in stone vaults at Novosvobodnaya village (Rezepkin, 1981). The accompanying artifacts included both offensive swords, spears, axes, bows with arrows, and defensive materials including helmets, shields, armor, and pieces of arms richly decorated with animal style depictions. Some of the latter articles have elements reflecting the influence of the Near East, pointing to Urartian art styles in particular (Piotrovsky, 1959, pp. 249-251; Chernenko, 1980, pp. 22-26). Among the artifacts of outstanding artistic value that were found in the Kelermes kurgans were three gold diadems: the first is in the shape of ribbons decorated with rosettes and birds with a sculptured griffin head in the center; the second is a silver mirror covered with engraved depictions of animals and mythological compositions around the figure of the goddess, Kibela, placed in center; the third is a silver rhyton. Also found were gold bowls with the same Ionian depictions (Artamonov, 1966, pp. 18-22; Maksimova, 1954; Maksimova, 1956). Scythian animal style artifacts included those on the *gorytus* (quiver) cover, the finials, and a gold panther decorating a shield (Artamonov, 1966, Tables 4, 5, 21, 22).

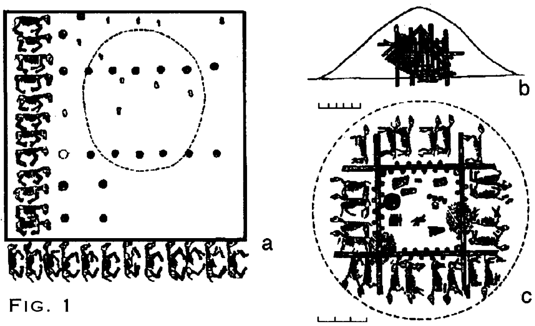


FIG. 1
COMPARTMENTALIZED BURIALS, WOODEN STRUCTURES, AND MARQUEES

Burial kurgans of the next chronological period, the 6th to early 5th centuries B.C., are represented most compactly in the Ul'skii and Umyapskii groups (OAK for 1908, p. 118; OAK for 1904-1910, p. 147; *Treasures...,* 1985). They are found also in Voronezhskaya village (OAK 1903, p. 71) and at Ust-Labinskaya (OAK, 1903, p. 69). All of these were the principal kurgans measuring 3 to 6 m high and belonged to representatives of the mounted military aristocracy. The dead, buried in grave pits on the ancient ground surface, were accompanied by horses. Vaults on four poles with marquee-type ceilings were recorded. All of the graves have been plundered and destroyed. Surviving artifacts yielded some pieces of armament and bridles richly decorated with Scythian animal style depictions. New elements discovered among the artifacts were Greek black-figured vessels which signal re-orientation of economic ties. This suggests that the Kuban area was influenced by the Bosporian sphere. Kurgan 1, standing 15 m high and located at the village Ul'skaya, belonged to the so called "tsar" tumuli (Fig. 2) (OAK for 1898, p. 30). A plundered wooden construction supported by four poles was found at the ancient soil level. Its dimensions were 7.45 x 5.7 m. The construction was oriented east/west. It was surrounded with several horse skeletons with 2 oxen skeletons placed on the western and eastern sides. The construction and skeletons were covered with cane. Three hundred sixty additional horses were buried in a strictly ordered pattern: 36 horses at each of the 4 poles and 18 horses at each of the 12 pillars. The horses were probably gifts to the buried ruler from tribal units (Gryaznov, 1980, p. 70). The high social status of the deceased is apparent also because of the remains of a funeral feast which had been arranged within the embankment. The feast consumed more than 50 horses as well as 2 complete oxen skeletons. In addition, separate bones from other oxen and ram were found in the embankment. A golden plaque depicting a torment scene found in the wooden structure also indicates the high position of the deceased.

In the 5th and 4th centuries B.C. the same types of burial constructions including various kinds of structures arranged on the surface or in grave pits continued to be built. Great numbers of horses were found in the burials (Fig. 3) (OAK for 1912, p. 50; OAK for 1913-1915, p. 151). At this time graves with dromi appeared with spacious pits and chariots buried in the dromi (Fig. 4), or with

wooden vaults built on the contemporary surface (Galanina, 1980, p. 26). The general appearance of grave pits with wooden ceilings remains the same but they are supplemented with a structure of stone blocks arranged for the dead inside a special vault. The explanation for this innovation is that the local aristocracy tended to imitate Greek customs. In addition to numerous horse burials graves of dependent persons appeared at this time.

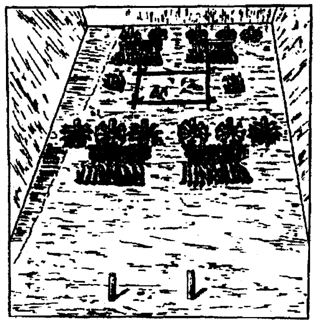


Fig. 2
Ul'skaya
Kurgan 1

The nomadic population considered cemeteries to be cultic sites where religious ceremonies were performed. One of the most respected cults was the ancestor cult because it was connected with certain cycles of fertility, military valor, cultic worship to Ares (the god of war), and to the cult of heroes and leaders (Bessonova, 1983, p. 60). Not only were the rites connected with burial occasions but they were connected also to those of the general tribal rites celebrated in the cemeteries. Herein lies the explanation for the installation of statues dedicated to heroes, and to those of Scythian ancestor gods which are found in the kurgans, as well as in special sanctuaries in the form of raised platforms on which are found a considerable number of artifacts related to ritual performances. The platform sanctuaries, with horse harness items, finials, and bronze cauldrons are dated both to the 6th century B.C. (Nekhayev, 1985) and to the 4th century B.C. (*Treasures...*, 1985). In 4th century B.C. burials the range of artifacts is much wider and includes pieces of armament, Greek pottery, bronze and silver vessels, gold plates, and sculptured finials in the shapes of deer or boars. On the ritual platform of Ulyapskii Kurgan 4 unique artifacts including 2 Panathenian amphorae of the 5th century B.C. and 2 rhytons, one of which has a depiction of Pegasus made by an outstanding master of the 5th century B.C. were discovered. One of the sanctuaries with a marquee-type structure has been interpreted by A.M. Leskov to have been a sanctuary for Ares (*Treasures...* 1985, p. 38). Ordinary burial kurgans of this period are also concentrated in the northern part of the territory between the Kuban and Beisug rivers. The dead were buried in small grave pits dug into kurgans which had been built during an earlier period. In two cases, grave pits with lateral chambers have been recorded. The dead were sometimes buried supine but more often they were turned either on the right or left side, with legs slightly bent, heads oriented to the west or east. The posture and orientation of the dead and the form of graves indicate a connection with the pre-Scythian period cultures of the Kuban River, the lower Don River, and the North Black Sea areas. Accompanying artifacts in ordinary graves are not numerous. They include clay vessels, food offerings of horse and sheep, arrowheads, *gorytus*, and armor plates. Almost no clay vessels are present in graves of the nobility while the graves of ordinary people have yielded vessels common to the Meot culture, including pots, cups, and basins (Dubovskaya, 1990, p. 182).

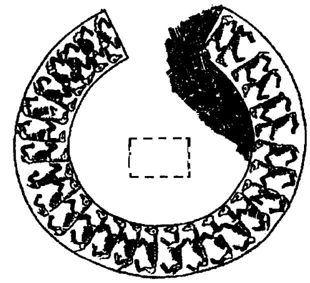


Fig. 3
Horse Burials
Voronezhskaya
Kurgan

In the central and eastern regions of the North Caucasus systematic excavations of early Scythian kurgan cemeteries had not been carried out before the 1970s. Nevertheless, all of the unexcavated materials were assembled and analyzed (Iessen, 1954; Minaeva, 1956; Vinogradov, 1972). The archaeological excavations of the decades of the 1980s and 1990s have produced some first class monuments of Scythian antiquity. The most important cemeteries were discovered at the farmstead Krasnoye

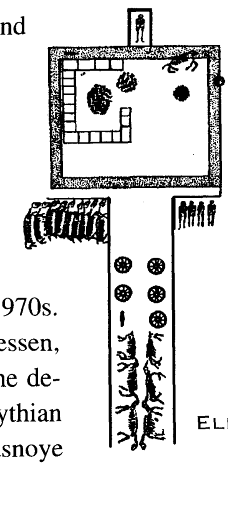


Fig. 4
Dromos with
Horses and
Chariots
Elizavetovskaya
Kurgan

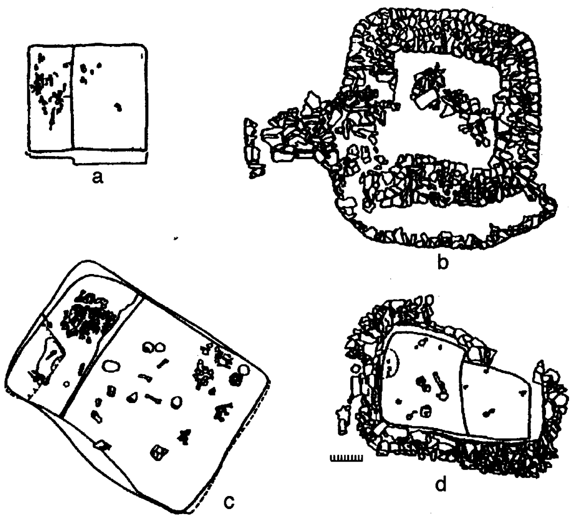


Fig. 5
Types of burial constructions, Krasnoye Znamya Farmstead Cemetery

Znamya, at the settlements Novozavedennoye and Nartan (Petrenko, 1983, 1989; Batchayev, 1985) as well as in the kurgans at the farmstead Stenoi, and those in the vicinity of Stavropol city (Vinogradov, 1974; Okhon'ko, 1984). All of the cemeteries are close in terms of their chronologies and date to the first half of the 7th century B.C. The cemetery at the farmstead Krasnoye Znamya consisted of 9 embankments. The central kurgan was 11 m high. Under the embankment of Kurgan 1 archaeologists found several royal burial vaults constructed in stone tombs with dromi on the ancient ground surface. The structures formed a temple-type burial complex containing a fire sanctuary (Fig. 5 a-d) and burials of elite horsemen in 8 kurgans. The burial structures were not similar. They included stone tombs on the ancient ground surface, wood and cane structures, and mixed structures in grave pits supplemented with marquee-type constructions over the pits at the ground level (Fig. 5 a-d). A number of graves contained elements indicating fire rituals such as the remains of fires which had been built over the graves and charcoal remains. Because the burials had been disturbed the positions of the dead and the full set of their accompanying artifacts are not known. However, all of the graves contained bridle elements. In three cases the number of horse skeletons and of harness items make it possible to ascertain the presence of chariots in the graves of distinguished warriors (Petrenko, 1980). The burial ground at Novozavedennoye village contained 17 kurgans, 2 to 8 m high and was a cemetery of the elite in a clan-tribal union. One adult person, either a man or a woman, or a few children were buried under each kurgan embankment.



Fig. 6
Pit grave under surface marquee-type structure Novozavedennoye Village Cemetery

Burial structures differ among themselves in details only. Wooden pillar structures were arranged in spacious grave pits which measure 3 m deep. The constructions were supplemented with a marquee-type surface structure made from tree branches and cane (Fig. 6). Some scorched areas of the burial structure indicate the use of fire ritual during the funeral ceremonies. The dead were buried supine. Although some deviation occurred the heads were orientated to south. The bridled horse burials were found usually in the male tombs but occcasionally they were found in the female ones. Defensive armament is represented only by a few armor elements while offensive armament is represented by swords, axes, spears, and arrowheads. Archaeologists have recorded elements of ritual performances in the form of horse bridles, clay vessels, sacrificial fires with animal bones, and human sacrifices that took place during the construction of the burial structures and kurgan embankments.

The functional period of the cemeteries at the farmstead Krasnoye Znamya and at the village Novozavedennoye was limited to the 7th and early 6th centuries B.C. while the Nartan cemeteries remained in use until the 5th century B.C. Burial rites at the latter cemeteries underwent some

change. Burial structures of the early period are similar to those at Novozavedennoye. They are spacious ground pits up to 50 m^2 in area with elements of wooden structures and superficial constructions of brushwood. In three kurgans of the early group the burial structures were completely burned and, as a result, the bones of humans and horses were scorched. The graves are single and double. The dead were buried contracted and the principal burial is oriented southeast while the subordinate is oriented southwest. The warriors were accompanied by 1 to 5 bridled horses.

Temporal changes in the burial traditions included the decreasing size of kurgan embankments and grave pits. For instance, in the 5th century B.C. the area of the latter was already less than 16 m^2. No structural details in the burial sites and no burning of the burial structures have been registered. Most of the graves are double with the dead contracted or supine with heads orientated to the southeast or southwest. Only one horse was found in a burial. In general, the burial and the accompanying ceremonies had become somewhat simplified.

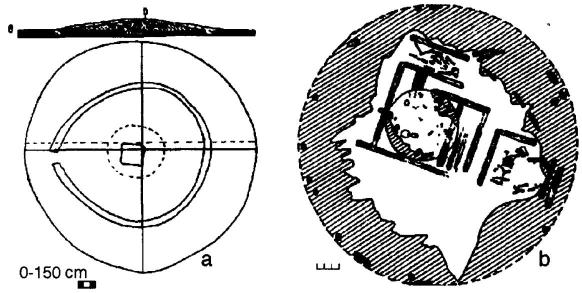
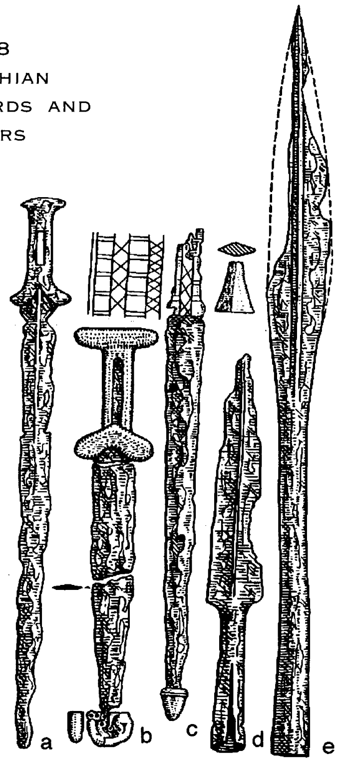


Fig. 7
Types of burial constructions of the 5th-4th centuries B.C.
a. Nartan II
b. Goiti

In addition to the Nartan I Cemetery, graves dating from 6th through the 4th centuries B.C. have been discovered in the Nartan II Cemetery. This cemetery is near the town of Nalchik which is located near the Goiti village and Stavropol City on the Verbovka River and at the farmstead Razdol'nii (Kerefov, 1986, 1988; Kerefov, Betrozov, 1990; Belinsky, 1990). A majority of the monuments of this time period are located on territory that was populated by tribes of the Kuban Culture. Similar to the Nartan I Cemetery, the graves are found under small embankments not more than 2 m high. The dead are buried in pits measuring not more than 10 m^2, or they are placed on the ancient ground surface usually in wooden crypts (Fig. 7). Burnt burial structures are found frequently. Marquee-type constructions are rare. The dead are always buried supine. Orientation of the bodies varies from cemetery to cemetery. Some cases of latitudinal and meridional orientation have been registered. Horses in burial chambers are found only occasionally. In one particular instance in Kurgan 4 at the village Goiti, a horse was buried in a separate chamber (Fig. 7b). The same kurgan contained the only accompanying grave of a woman who apparently had been killed. The influence of the Kuban Culture is manifest mostly in the accompanying artifacts (decorative items and pottery). In the eastern areas the structural form of a burial vault in a grave pit or burials on the ground surface survived to the end of the 5th century B.C. Out of this century emerged steppe monument traits such as shallow ditches with bones of sacrificed animals around the burial structure (Fig. 7a) (Kerefov, 1986, pp. 33-34). These are found in the north Black Sea area and are characteristic of Scythian steppe monument traits.

On the western side of the central North Caucasus, monuments from the 5th century B.C. are isolated instances. Some stone sepulchers with dromi belonging to the 4th century B.C. were found. These are interpreted as developments of archaic period stone structures. At the same time Greek traditions were introduced as well as influences from the Bosporus periphery (Belinsky, 1990). The latter is confirmed by Greek pottery and small sculptural pieces found in the ruined sepulchral structures. Dating from the 4th to early 3rd centuries B.C. a considerable number of Greek amphorae were imported mostly from Rhodes. These have been recorded at the Grushevskii site (Gadlo, Naidenko, 1988). Having taken into account the skeleton with a coin between its

FIG. 8
SCYTHIAN
SWORDS AND
SPEARS



teeth excavated at Stavropol City, a few Greek coins in Zelenchuk, a Greek helmet in Dombai, the trimmed stone vault on Brik hill at Sultan village, and the Greek artifacts in the Stavropol Museum, A.V. Naidenko postulated that the Grushevskii ancient town site was the location of a Greek trading post (Naidenko, 1984, pp. 44-50).

The accompanying artifacts from the kurgan graves of the North Caucasus do not differ much from the general Scythian accoutrements either in their composition or in form. However, as the early Scythian culture is best represented in the North Caucasian sites, it seems worth describing briefly the materials of the 7th to early 6th centuries B.C.

It is important to remember that a significant part of the arms and weapons come from accidental finds and graves of the Kuban Culture. In the 7th century B.C. in this territory the Scythian sword went through a formative process (Leskov, 1979; Chernenko, 1979; Shramko, 1984). This explains the existence in the 7th century B.C. of iron swords of pre-Scythian and Scythian types, and of some transitional forms represented by bi-metallic and iron examples. Side by side with the common early-Scythian swords with bar-shaped finials (Fig. 8a) and butterfly or bud-shaped crosspieces dating to the 7th century B.C., are swords with no metallic finials at all (Fig. 8c). These come from the kurgans at Lermontovskii Junction; 16 from Nartan village, from graves at the Safonovskii Spring, and from the Furniture Factory site at Kislovodsk city. With reference to the 6th - 5th centuries B.C. it should be noted that antenna-shaped finials are extremely rare here as are the oval-shaped ones of the 4th century B.C. Swords with straight and pseudo-triangular crosspieces and single-edged blades appear in this region somewhat earlier than in the northern Black Sea area. Much richer here than in the North Black Sea area are sword scabbards of the ancient period. The best samples of these come from Kelermes (Artamonov, 1966, Tables 6-8). The lower part of scabbards usually survives (Fig. 8 b-c). The earliest ones have the appearance of a semi-oval or rounded capping, either plain or with depictions of two heraldically arranged or curling feline beasts of prey such as those found at Nartan, Kelermes, Maikop, and near the farmstead Stepnoi. The 6th century B.C. marked the existence of the bronze finial in the form of a coiled feline beast of prey or the bone carved finial as a stylized griffin head. Typical examples of 5th century B.C. finials are those from Urus Martan and Zakuti which display flaring lower end and open work depictions of stylized animals.

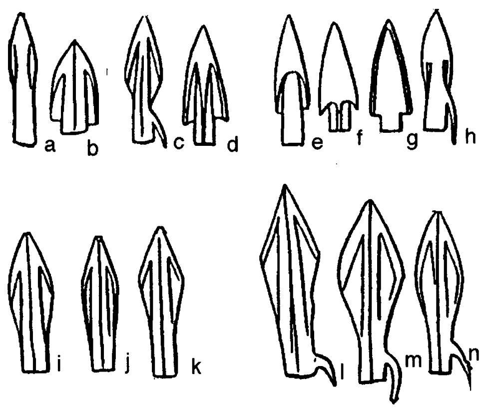


FIG. 9
SCYTHIAN
ARROWHEADS

In the North Caucasus and in the steppes of the North Black Sea arrowheads were indispensable accessories of any Scythian warrior. A characteristic feature of the Kuban area is that iron arrowheads with rhomboid and laurel leaf-shaped wings appear from the very inception of the Scythian Period. Beginning from as early as mid-7th century B.C., the quivers belonging to the North Caucasus warriors yielded both two-bladed and three-bladed hollowed arrowheads (Fig. 9). Also characteristic of the same period are stick-buttons of pre-Scythian

forms for quivers (Fig. 10 b-c). Quivers closed with figured flaps are also noted.

The form of offensive arms from the Kuban area is specific to the 7th century B.C. The warriors used very long spearheads, up to 71 cm. (Fig. 8e). Iron swords of the Sindo-Meot type which were also used by warriors are dated from the 5th and 4th centuries B.C.

In the territory of Scythia cast bronze helmets of the "Kuban" type (Fig. 11) are known from the North Caucasus only. Researchers ascribe the origin of the form of helmets to the Near Eastern world but believe that they were produced in the North Caucasus (Galanina, 1985). Dated finds are known only from the richest kurgans at Kelermes, Nartan, and Krasnoye Znamya and date to the 7th century B.C. They are also depicted on the earliest of sculptures from Vorovskolesskaya village and in the Stavropol Museum. The earliest shields covered with metallic plates were also found in the North Caucasus. They are made of bronze (Nalchik) or iron (Kostromskaya). The shields from the richest kurgans are decorated with massive gold plaques and have animal style depictions such as the deer from Kostromskaya and the panther from Kelermes on them (Artamonov, 1966, Tables 22, 62).

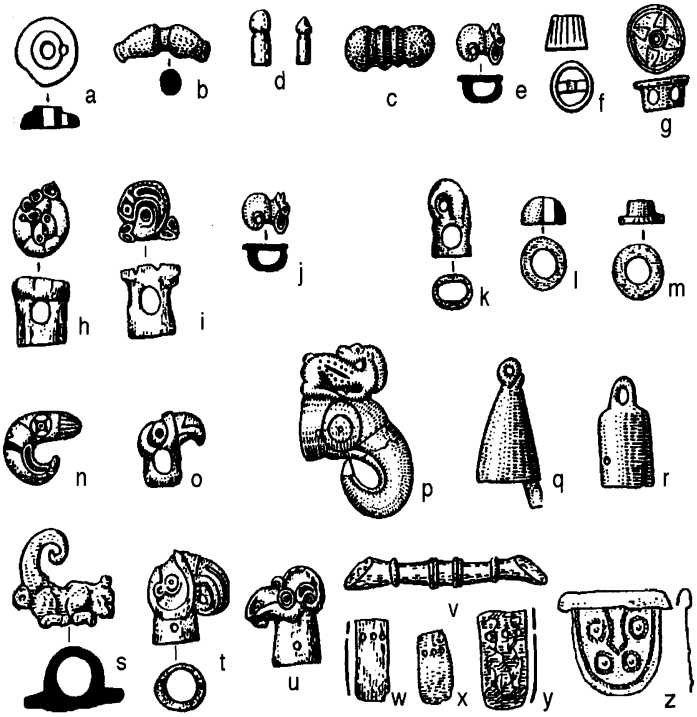


FIG. 10
DETAILS FROM
HORSE HARNESSES

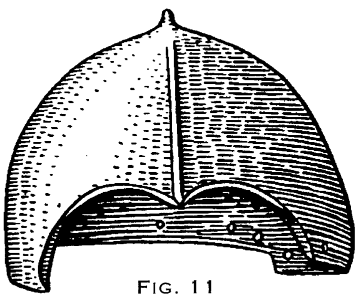


FIG. 11
KUBAN TYPE HELMET

As in the case of armament from the 7th century B.C., some transitional forms (Fig. 12 a, d) of bridle bits are found in the North Caucasus. Their appearance is explained by the wide introduction of iron and of related newer technologies which caused the change in the artifact forms. Some attempts at forging all types of bridle bits known from previous periods have been recorded. The iron bridle bits of different types – one-ringed, two-ringed, and stirrup-shaped – appeared in this period. They were found in Komarovo, Nartan, Krasnoye Znamya, and Kelermes. Some iron imitations of the bronze Novocherkassk cheekpieces were

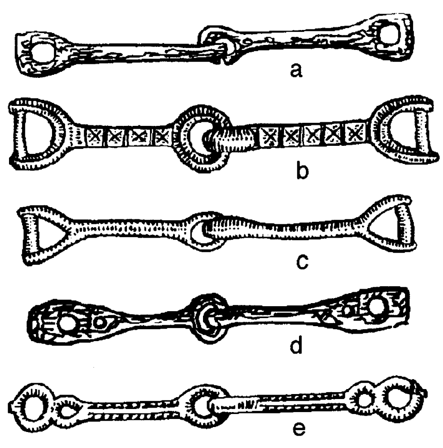


FIG. 12
SCYTHIAN
BRIDLE BITS

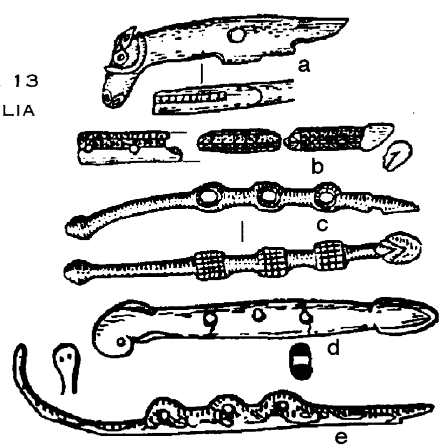


Fig. 13
Psalia

found at Psekups. Some elements of the Scythian ornamentation are found on the cheekpieces of the Novocherkassk type while Novocherkassk ornamentation is found on Scythian-type bridles (Fig. 13c, Fig. 14). The two-ringed iron cheekpieces with small inner holes did not become widespread and were not known in the North Black Sea area.

Apart from the internal development of the bridle forms and fighting saddles, these accoutrements changed as a result of influence from the Near East (Fig. 10). Influences from the Near East include those found on gala or ritual horse attire (Galanina, 1984), strap cover-plates of thin gold or silver sheets, falars, fang-shaped cheekpieces, rein distributors, and bronze stick-buttons (Fig. 15). In addition to the bridles, the idea of a fighting chariot was also borrowed. Elements of Near Eastern influence are apparent mostly in the 7th century B.C. Beginning from the 6th century B.C. bridles are essentially the same as those from the North Black Sea area.

The territory of the North Caucasus yielded the earliest forms of finials from the kurgans at Makhoshevskaya, Kelermes, Krasnoye Znamya, and Novozavedennoye (Fig. 16). At the beginning of the 7th century B.C. finials were found always together with bridles. Sometimes it is clear that the finials decorated carriages and chariots. Pottery vessels from the burials include large wide-necked pots, jugs, small basins, and mugs in different numerical combinations. They are either black burnished or, less often, gray colored. They usually are decorated with ornamental patterns and filled with white paste. The decorative motifs often form complex compositions of sign codes such as the swastika, running waves, and triangles (Figs. 17-18, 21). These vessels were produced by Kuban craftsmen by order of the Scythians. This is affirmed by the specific shapes and ornamentation of vessels which have depictions of deer exactly in the Scythian animal style. Workshops of the North Caucasus and Transcaucasus also supplied some bronze vessels represented by situlae with zoomorphic handles, various kinds of bowls decorated with stamped and engraved designs with and without handles, and cast and riveted bronze cauldrons (Figs. 21-22). These have been found at Kelermes, Krasnoye Znamya, Nartan, and Novozavedennoye. It is apparent that these artifacts were produced specifically for Scythian customers. Wooden vessels, common in the lives of nomads, have not survived in the burials. The only element of these known are the gold covered plates from the kurgan at Krasnoye Znamya dating back to the 7th century B.C. The simplicity of their form makes them similar to bowls such as those found at the Vysokaya burial dating to the pre-Scythian



Fig. 14
Rosette
Kelermes
Kurgans

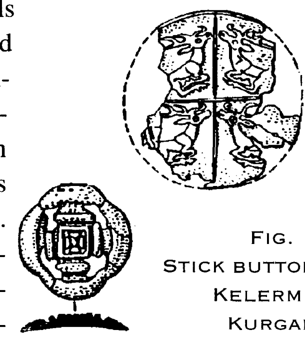


Fig. 15
Stick buttons
Kelermes
Kurgans

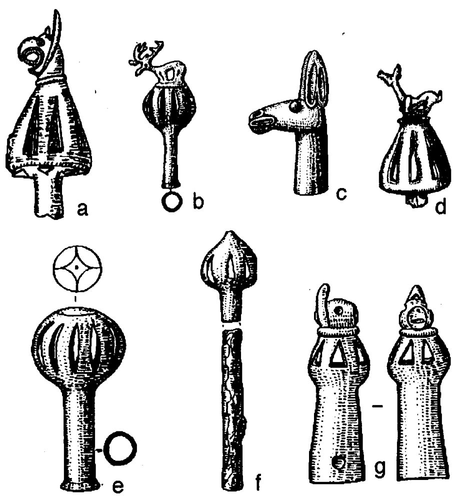
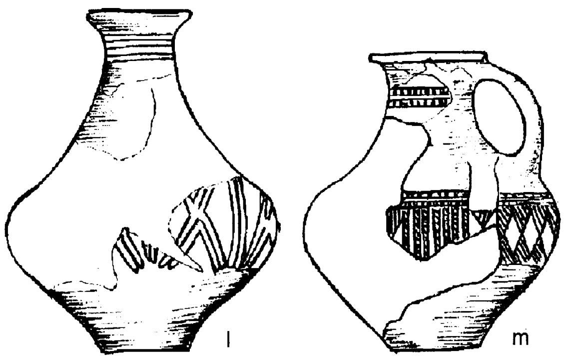


Fig. 16
Scythian
finials



Fig. 17
Scythian Pottery Group 1



period. Bowls with gold covered plaques became widespread in the North Black Sea area only in the 5th century B.C. It is only in the North Caucasus that dishes made of elk horn and richly decorated in the early Scythian animal style are known.

Among the cultic articles are found stone altars which either repeat the shape of oval dishes common to the Scythian world or are large and trough shaped and used for fire rituals. The larger altars with circular holes in the center may have been used for blood sacrifices. Others with traces of red paint were used for the same purpose or imitated the blood sacrifice ritual. These altars are frequently present in kurgans of the North Caucasus. Pebbles, which number 50-60 in some graves, probably belonged to ritual activities. Very few articles of personal adornment have been found in the kurgans and those that are recorded are either made by Eastern Greek or Assyrian jewelers. The jewelry includes coiled earrings, diadems decorated with rosettes, and other items made by stamping, granulation, and filigree (Fig. 23 b-c, f). Sometimes when female burials accompanied male ones female adornments (bracelets, earrings, pins, pendants) were made in the Kuban style (Fig. 23 a, d-e). The majority of beads are made of carnelian, amber, and Egyptian faience. Cowrie shells are quite common. Judging by the sculptures, torques were an obligatory attribute of noble warriors and have been found twice, once at Kelermes and the second time at Kovalevskii.

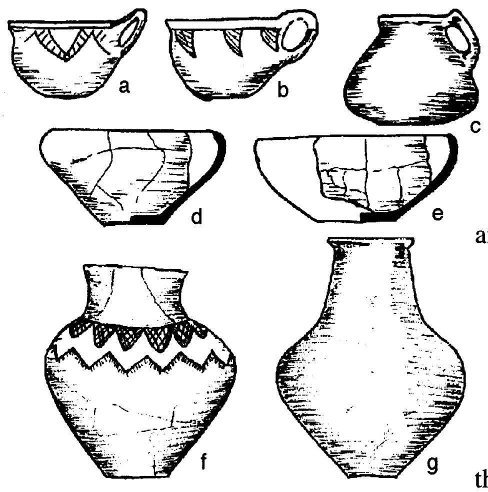


FIG. 18
SCYTHIAN POTTERY
GROUP 2

The Scythian tribes coming to North Caucasus during the 8th and 7th centuries B.C. were not numerous. They occupied the same ecological niches as the local agricultural populations which were possibly subjugated. The Scythians continued to live nomadically but on a limited territory. They acquired their surplus by collecting tribute from the surrounding Kuban and Meot tribes.

Two groups of Scythian sites, one in the Kuban area and the other in the central region of the North Caucasus, display in the 7th century B.C. a great degree of similarity in the forms of burial structures, ceremonies, and accompanying artifacts. Inhumations were under kurgan embankments, inside wooden or stone constructions with marquee ceilings placed either in a pit or on the ancient ground surface. Burning within the burial structure was practiced. The dead were accompanied by both riding and draught horses. The similarity of customs practiced in these two groups is manifest in cultic practices and decorative motifs: similar forms of altars and the similar images of animal style and anthropomorphic sculptures. The influence of the local cultures at this time was minimal. Scythian interaction was dependent upon the nomads obtaining agricultural products and crafts from the indigenous inhabitants. For these reasons they conquered and established various forms of interdependence with the sedentary societies.

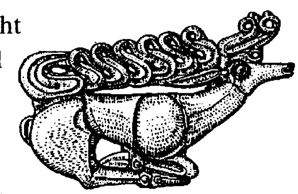


FIG. 19
SCYTHIAN DEER
KOSTROMSKAYA KURGAN

During the 7th century B.C. the Scythians made military campaigns to the Near East. According to many scholars the campaigns were recurring. Excavations revealed monuments that reflect the cultural and religious influence of the highly developed civilizations of the Near East and the Transcaucasus. Scythian rulers tended to imitate the kings of Assyria, Urartu, and Media. The fire temple under the embankment of the Krasnoye Znamya Kurgan 1 was built following the canons of the Iranian temple architecture and some parallels are found in the architecture and building techniques of the Median fire temples. In the absence of any local sources of such temple architecture it can be assumed that some skilled builders came to the North Caucasus. Indicating the presence of Near Eastern craftsmen are such finds as chariot parts with depictions of the goddess Astarte stylized similar to images found on the Assyrian reliefs, gala horse attire, bowls, stools, some elements of clothing, personal adornment including diadems, and earrings. These are thought to have been borrowed items.

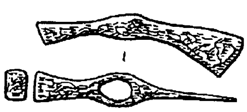


FIG. 20
ADZE-AXE

Scythian cemeteries of the 7th century B.C. provide a reflection of the societal structure of the time. Up to the present time all of the excavated kurgans belonged to the elite social strata, the horsemen. The cemetery near the farmstead Krasnoye Znamya was the burial ground for the "tsar" family, head of the great tribal unity. Burials of the tribal chieftains were included in this cemetery. The burial temple complex indicated the existence of the tribal headquarters in the area. The time period that the cemetery was functional is narrow. However, the differences in the burial structures within the cemetery are due to the organizational pattern of the nomadic military.

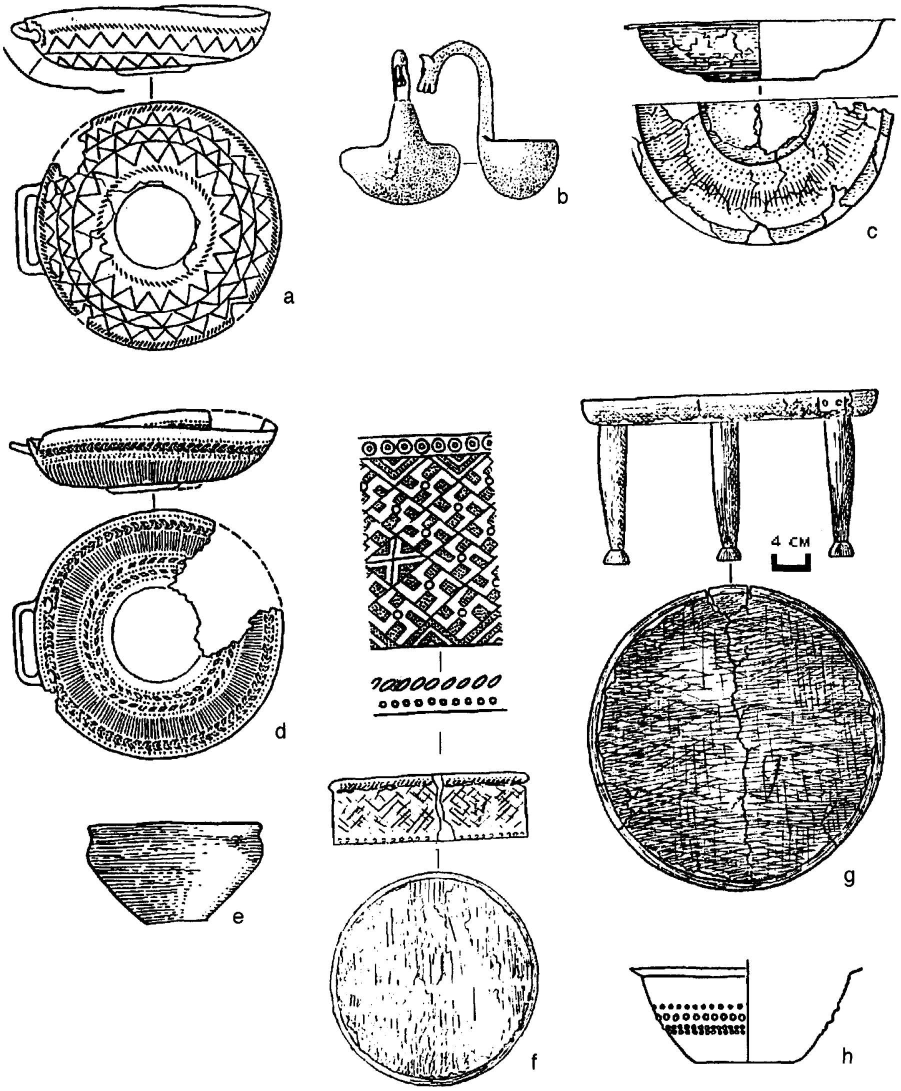


FIG. 21
BRONZE
VESSELS

Novozavedennoye Cemetery, with its strictly canonical burial rites applied to men, women, and children, reflects the structure of an ethnically united aristocratic clan-tribal unit. And finally, the Nartan burial ground, situated in the foothills, displays the influence of Kuban tribes upon the Scythians over time. Both in the Kuban area and in the central part of the North Caucasus surface burials and pit burials were situated in the same or adjacent cemeteries. Among the graves of the local population artifacts found in a considerable number of burials are almost exclusively of Scythian type, including those with animal style decoration. Moreover, the data from the Ullubaganalli Cemetery burials indicate that a different anthropological type of people were buried in such graves. These facts indicate the presence of a Scythian ethnic element among the local population (Kovalevskaya, 1984, p. 30; Galanina, 1985, pp. 163-164). Beginning in the 6th century B.C. the influence of the local cultures upon the Scythians grew considerably especially in the eastern region

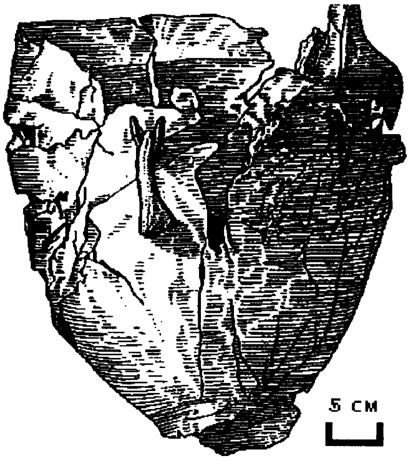


FIG. 22
BRONZE CAULDRON

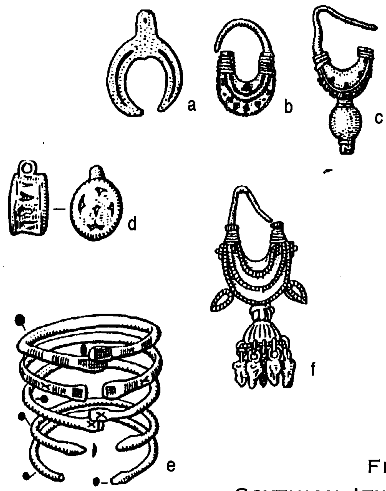


FIG. 23
SCYTHIAN JEWELRY

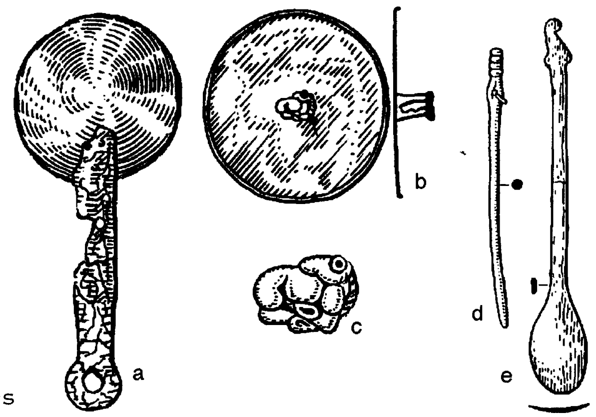


FIG. 24
SCYTHIAN MIRRORS
AND TOILET ARTICLES

of the central northern Caucasus. It was probably at that time that some Scythians resettled from the North Caucasus into the steppes north of the Black Sea.

As a result of contacts with highly developed civilizations the Scythian society developed unevenly both culturally and socio-politically in the North Caucasus through different periods and within the discrete Scythian groups. When the Scythians left the Near East ties that had existed in the 7th and early 6th centuries B.C. came to an end.

The Bosporus Kingdom was formed in the 6th century B.C. and exerted considerable influence, mostly upon the neighboring Kuban River region. In this region the 6th to 4th centuries B.C. were marked by culturally flourishing growth in terms of the settlements and in the development of their own crafts. Trade with the cities of the Bosporus Kingdom increased. Property differentiation became greater. This period marked the appearance of kurgans with great numbers of buried horses and mass human sacrifices as well as by a considerable increase in the variety of imports (*Ul'skii kurgan,* 1898, Galanina, *Kurdzhipskii kurgan,* 1980). These innovations testify to a new stage of development of the Scythian Kuban society as it became consolidated with the Meot society. Only the upper strata remained Iranian as evidenced by continuity in the development of burial traditions. Greek influence is apparent in western parts of the central regions of the North Caucasus only from the end of the 4th century B.C.

Notes

Chapter 1

Scythians in the North Caucasus

1. Chariots may not have originated in the Near East. In recent years Russians and Kazakh archaeologists have excavated cemeteries east of the Ural mountains which belong to the Sintashta-Petrovka culture. The Sintashta site is southeast of the city of Magnitogorsk while the Petrovka site is located 400 miles to the east on the Ishym River in northern Kazakhstan. In a grave pit at Krivoe Ozero, 120 miles north of Sintashta, archaeologists discovered an assemblage of materials typical for the Sintashta-Petrovka culture. The skulls of two ritually killed horses, bone disk-shaped cheekpieces from a harness, and traces of chariot wheels having 8-12 spokes were found in the grave. Radiocarbon dating accomplished by the University of Tucson and Oxford University using an accelerator mass spectrometer yielded a range of dates from 2136 to 1904 B.C., with an average of 2026 B.C. Scientists in the Western World have suggested that these may be the earliest chariots developed anywhere. (Also see John Noble Wilford, "The Sintashta-Petrovka Culture: Second Millennium B.C. Settlements in Southern Siberia and Kazakhstan," (Science Times Section) *New York Times* (February 22, 1994). Also David W. Anthony and Nikolai B. Vinogradov, "Birth of the Chariot," *Archaeology*, March/Arpil, 1995, pp. 36ff. (Ed note.)

Key to cultures

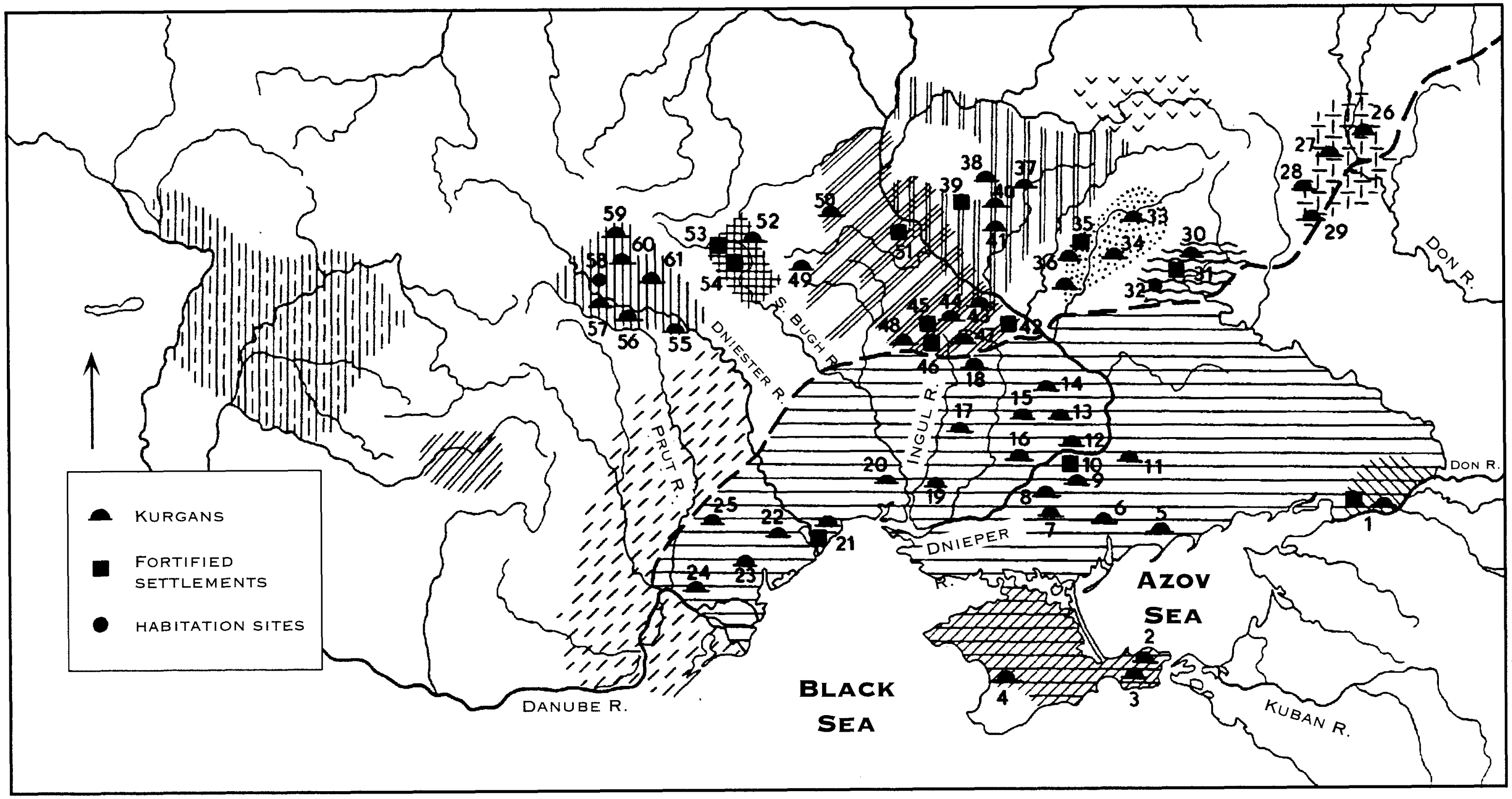
- A - Potisskaya
- B - Transil'vanskaya [Transylvanian]
- C - Geto-Frakisskaya
- D - Skifskaya Stepnaya [Scythian Steppe]
- D - Krymskaya [Crimean]
- E - Nizhnedonskaya [Upper Don]
- F - Zapadnopodol'skaya [West Podol' ?]
- G - Pobuzhskaya
- H - Srednedneprovskaya pravoberezhnaya *
- I - Posul'skaya
- J - Vorsklinskaya
- K - Severodonetskaya [North Donets]
- L - Srednedonskaya [Middle Don]
- M - Seiminskaya
- O - Border between steppe and forest-steppes

* Right Bank Middle Dnieper

Monuments

1 - Stanitsa Elizavetovskaya
2 - Temir-Gora
3 - Kul'-Oba
4 - Simferopol'skii (Zolotoi)
5 - Dvugorbaya Mogila
6 - Melitopol'skii
7 - Ogyz
8 - Chmyrev
9 - Solokha
10 - Kamenskoe
11 - Gaimanova Mogila
12 - Nikopol'skii
13 - Chertomlyk
14 - Aleksandropol'
15 - Tolstaya Mogila
16 - Krasnokutskii
17 - Novaya Rozanovka
18 - Mel'gunovskii (Litoi)
19 - Kalinovka
20 - Kovalevka
21 - Nadlimanskoe
22 - Semenovka
23 - Ostrovnoe
24 - Plavni
25 - Balabany
26 - Chastie
27 - Mastyuginskie
28 - Russkaya Trostyanka
29 - Durovka
30 - Tsirkuny
31 - Lyubotinskoe
32 - Ostroverkhovka
33 - Kirikovka
34 - Likhochevka
35 - Bel'sk
36 - Machukhi
37 - Velikie Budki
38 - Vschlkovtsy
39 - Basovka
40 - Akcyutintsy
41 - Khittsy
42 - Matroninskoe
43 - Gulyai-Gorod
44 - Tenitinka
45 - Pastyrskoe
45 - Harpovskoe
47 - Ositnyazhka
48 - Zhurovka
49 - Perepyatikha
50 - Glevakha
51 - Trakhtemirovskoe
52 - Il'intsy
53 - Severinovskoe
54 - Nemirovskoe
55 - Lenkovtsy
56 - Doinyany
57 - Perebykovtsy
58 - Ivane Puste
59 - Novoselka Grimailovskaya
60 - Ivakhnovtsy
61 - Sapogov.

Key to Map 3. Cultures and Most Prominent Monuments Related to the Scythian Culture in Eastern Europe from the 7th-3rd centuries B.C.



MELYUKOVA

MAP 3. CULTURES AND MOST PROMINENT MONUMENTS RELATED TO THE SCYTHIAN CULTURE IN EASTERN EUROPE FROM THE 7TH-3RD CENTURIES B.C.

CHAPTER 2

SCYTHIANS OF SOUTHEASTERN EUROPE

ANNA I. MELYUKOVA

The vast steppes of southeastern Europe mark the westernmost part of the Great Steppe Zone of Eurasia (Map 3). The southern steppes are limited by the coasts of the Black Sea and Azov Sea while the northern boundary is less distinct and runs along the line that defines the spreading of common, medium, and low humus *chernozem*[1] characteristic of the forest-steppes. The western boundary is delineated by the Danube River and the conventional eastern boundary is delineated by the lower Don River. The steppes stretch from the west to the east for approximately 1000 kilometers, and from the north to the south for over 500 kilometers. The total territory measures about 235 km^2. The southwestern steppes of East Europe encompass the Dnieper River and Black Sea lowlands. This region is watered by the Dnieper, Dniester, South Bugh, Ingul, and Ingulets rivers and by several other smaller rivers. In ancient times the steppe territory was covered with natural grassy vegetation and forests located on river floodlands, terraces, and sandy areas.

The forest-steppe zone is located north of the steppes. The forest-steppe zone encompasses the Dnieper River hills, the middle reaches of the Dnieper River, and the south Bugh River. It extends from part of the Dnieper River lowland on the left bank of the middle Dnieper River to the middle Don River. An area of mixed forests occupies the land north of the forest-steppe zone. The forest-steppe is known for its large tracts of forest combined with woodless tracts of meadow steppes.

The early lst millennium B.C. marks the Iron Age in Eastern Europe. In the steppes of the North Black Sea and Azov Sea, as in the other steppe areas of Eurasia, the Iron Age corresponded with the transition of the Eastern European inhabitants from sedentary, pastoral agrarian people to nomadic, animal breeding tribes. By the 9th century B.C. the numerous steppe settlements including surface and subterranean dwellings used by the Bronze Age population had disappeared. From the 9th century B.C. to the late 5th century B.C. the tribes constantly moved their herds from one pasture to another. In the late 5th century B.C. and following into the 4th century B.C. the nomads began to settle in areas. These changes did not take place in the neighboring forest-steppe zone. As in the Bronze Age, this area was still populated by a sedentary agrarian population. However, from time to time, the sedentary population was subjected to invasions from nomadic hordes. Moreover, the permanent presence of the neighboring nomadic forest-steppe population left imprints on many aspects of life and culture for the sedentary population.

The population in the southern region of Eastern Europe did not have a written language. Ancient sources, however, contain the names of some tribes and peoples who inhabited this area. Historians wrote about the Cimmerians and the Scythians of the North Black Sea area. The Cimmerians were ancient inhabitants of the North Black Sea area while the Scythians are believed to have appeared later in this region. Recent historians believe that the Scythians replaced the Cimmerians in the late 8th century B.C. or at the turn of the 7th century B.C. It was at this time that the war described in Herodotus' writings took place between the Scythians and the Cimmerians at which time the Scythians became conquerors and drove the Cimmerians into Asia Minor.

Most of the information about the Scythian population and related historical events is supplied by Herodotus who visited the Greek town, Olbia, on the coast of the Bugh River estuary in the middle 5th century B.C. He devoted almost all of Book IV of his book *History* to discussing Scythian history. A number of important facts about Scythian lifestyle can be elucidated from the works of writers, historians, and poets of Greek and Roman times. The written sources, however, are fragmentary and sometimes contradictory which hinder proper interpretation of events. According to the documentation the Scythians inhabited mainly the steppes north of the Black Sea and Azov Sea areas. At the same time in ancient literature, especially that of the Greek Period, the name "Scythians" was frequently used to denote the group of people who inhabited not only these lands but also land much farther away, specifically in Asia and areas within the forest zone of Eastern Europe. The early history of the Scythians is connected with their military campaigns in the Middle East and Asia Minor where they pursued the Cimmerians. Historical documentation is provided by Herodotus and ancient writers who authored the Assyro-Babylonian cuneiform documents (Dyakonov, 1956, 1968; Piotrovsky, 1959; Vinogradov, 1972; Pogrebova, Rayevsky, 1992). The first time the Scythians are mentioned (*ishkuza* or *ashkuza*) in cuneiform documents is during the late 7th century B.C. when, led by their King Ishpakai, the Scythians became united with the Medes and Mannaeans and fought against Assyria. Beginning in the very late part of the 7th century B.C., the Scythians now allied with Assyria, conducted a few successful campaigns against the enemies of Assyria, and undertook a march across Mesopotamia, Syria, and Palestine into Egypt. Later, the Scythians' betrayal weakened Assyria when they joined the Babylonian-Median coalition. Herodotus' writings provide a colorful description of the nature of Scythian hegemony in the countries of the ancient Near East. "Scythians ruled Asia for 28 years and devastated everything through their violence and overindulgence. They laid everybody under tribute but as if that were not enough they raided and robbed everything each people had" (Herodotus, I, 106). The horrors of Scythian invasions are also noted in the books of the biblical prophets.

According to Herodotus, Scythian excesses in the Middle East were brought to an end by the Median King Cyaxares (625-585 B.C.) who annihilated the entire Scythian military hierarchy. Following their obliteration, the main body of surviving Scythians returned to the area north of the Black Sea.

Modern researchers differ considerably with reference to the chronology and duration of the Scythian rule in the ancient Near East. Opinions also differ over the issue of the stability of Scythian rule as well as over the territory which they ruled (Pogrebova, 1984 and cited bibliography). Upon their return to the North Black Sea area from their Middle Eastern campaigns, the Scythians were subjugated to a war "not smaller than the Median." This was fought against descendants of slaves whom the Scythian women had married in the long absence of their husbands (Herodotus, IV, 3). From this legend researchers deduced that the Scythians again had to subdue some of the tribes that had broken away.

The late 6th century B.C. (514 or 512 B.C.) was the most heroic epoch in Scythian history. This period is marked by the successful Scythian war against the many thousands of Persian troops of King Darius I who had invaded the Scythian lands. A detailed chronicle of the war is the topic of many chapters of Herodotus' *History*, Book IV. A more modest and somewhat different account concerning the war is available in the works of Ctesias (Fr. 13, 20-21) and Strabo (VII, 3, 14). Modern historians differ from the ancient writers in their reconstructions of the events and their evaluations of the results of the war (Chernenko, 1984 and cited bibliography). The war with the Persians is thought to have facilitated the process of the Scythian tribal consolidation and the growth of their national identity (Yatsenko, 1959, III).

Soon after the Persians were driven out the Scythians invaded Thracia[2] and reached Thracian Chersonesus in order to secure themselves against their new encroachments (Herodotus, IV, 40). They also had planned to undertake a military campaign against Persia which never actually happened. The period between the 5th and 4th centuries B.C. which followed the Scythians' initial penetration into Thracia was defined by Scytho-Thracian conflicts (Vinogradov, 1980, p. 108). The 5th century B.C. was filled with quite a number of such conflicts. During this time also the Scythian and Thracian kings were contracting dynastic marriages which helped bring about peaceful resolutions to their disputes. In addition to the conflicts with their western neighbors in the 5th century B.C., the Scythians were also at war with their eastern neighbors, the Sinds, whom they reached in winter time by crossing the frozen Kerch Peninsula (Herodotus, IV, 28).

Two internal Scythian conflicts, documented by Herodotus in stories about Anacharsis and Scyles, occurred at nearly the same time as the external conflicts. These conflicts reflect the struggle of political entities in Scythian society (Herotodus, IV, 76-78). In the 4th century B.C. the economic, political, and cultural development of Scythia reached its apex. In the 4th century B.C. the Scythian King Atheas united all of the tribes of Scythia from the Danube River to the Don River (Strabo, VII, 3, 18). During the middle of the 4th century B.C. King Atheas established himself on the right bank of the Danube River after having captured some land belonging to the Getae, a Thracian tribe (Polyaenus, VII, 411). The Scythians began to play an important role in the complicated political situation which developed in connection with the activities of Philip II of Macedon in the Balkans. Atheas thought himself to be equal to the Macedonian King. However, the Macedonians proved to be much stronger than Atheas and his tribes and in 339 B.C. the 90-year old Atheas perished in a combat with the troops of Philip II. Philip captured 20,000 women and children and a multitude of cattle. About 20,000 thoroughbred horses were sent to Macedonia (Shilov, 1965). After the defeat of Atheas, the Getae infiltrated the land from the left bank of the Danube River up to the Dniester River. Subsequently, there appears to have been no significant weakening of the Scythian Kingdom as evidenced by the luxurious burials found in the royal kurgans of the North Black Sea region, such as those found at Chertomlyk which date to the last third of the 4th century B.C. Scythia preserved its military capability as well. This is evidenced and documented in an episode which occurred in 331 B.C. when Zopyrion, vice-regent of Alexander the Great, invaded Scythia and besieged Olbia. Zopyrion was killed and his army suffered a shattering defeat by the Scythians (Justini, XII, I, 4).

The subsequent history of the Scythians is documented poorly in historical sources. One of the few known historical facts is that in the late 4th century B.C. the Scythian army fought on the side of King Satyr of Bosporus in an internecine war against his brother Eumelus (Diodorus Siculus, XX, 22-26).

In the 3rd century B.C. the Scythian Kingdom continually faced crises as a result of massive movements of Sarmatians from the Don River area and of the Getae and Celts from the Danube River region. Moreover, climatic changes in the steppes of the North Black Sea area may have affected their economic stability. As a result, one faction of the Scythians moved into the Crimean foothills while the remaining groups settled along the banks of the lower Dnieper River where they built a series of fortified settlements. Within these boundaries the Scythian Kingdom which Strabo documents as Scythia Minor continued to exist up to the Hunnic invasion of the early 3rd century A.D. The early 4th century A.D. was marked by the great migrations during which the Scythians were assimilated into a multitude of tribes and thus lost their segregated ethnic identity.

Scythian studies began in Russia in the 18th century A.D. when scientists began to study the Slavic people and the Russian state. The first kurgan excavations which produced an interesting set of Scythian artifacts were carried out in 1763 by General Melgunov in the vicinities of Kirovograd city. However, up until the second half of the 19th century A.D. Scythian kurgan excavations were accidental in nature.

The general development of historical science in the second half of the 19th century A.D. was instrumental in attracting the interest of members of the scientific world to the history of the Scythian people. At this time a number of significant works on the geography and ethnography of Scythia appeared. K. Mullenhof (1886) and V.F. Miller (1887) confirmed their theses concerning the propinquity of the Scythian and Iranian languages. During the second half of the 19th century A.D. several very large Scythian kurgans were excavated in the lower Dnieper River area. I.E. Zabelin and N.I. Veselovsky studied such distinguished kurgans as Chertomlyk, Aleksandropolskii, Krasnokutskii, Solokha, and Ogus. I.E. Zabelin was one of the first Russian historians to use archaeological materials in the interpretation of the ethnographical treatise of Herodotus concerning the Scythians.

In the late 19th and early 20th centuries A.D. artifacts obtained from intensive kurgan excavations conducted by A.A. Bobrinsky in the mid-Dnieper River area enriched the collection of Scythian antiquities. In the pre-revolutionary years in the forest-steppe zone of Eastern Europe excavations began on ancient fortified settlements (A.A. Spitsin, V.A. Gorodtsov). These produced important materials used to study the lifestyle and culture of sedentary agrarians who remained in close contact with the nomadic people. The achievements of the pre-revolutionary researchers are recorded in the works of M.I. Rostovtsev. His book *Skifia i Bospor* (1925) provides a detailed analysis of written archaeological sources and still serves as a useful handbook for studying Scythian history and culture despite the fact that it contains a number of disputable points.

On the whole, researchers of the pre-revolutionary period were invaluable in their accumulation and documentation of the Scythian archaeological materials. Their work led them to articulate the problems and brought forth suggested solutions associated with the chronicled history and culture of the Scythians. Contemporary Soviet researchers have continued to develop the ideas of their predecessors while at the same time they have continued to explore new methodologies to study the principal Scythian themes. Notable contributors to our understanding of the Scythian people have included M.I. Artamonov, B.N. Grakov, V.A. Il'inskaya, and A.I. Terenozhkin. Thanks to their efforts Scythology has become an independent branch of archaeology occupying a prominent place in archaeology and in historical science. The development of Scythology during the Soviet period was facilitated by the wide scope of excavations that became particularly active after World War II. Throughout this period, not less than 3000 Scythian kurgans of varying sizes have been excavated in the steppe zone north of the Black Sea. These include such carefully excavated and truly remarkable

kurgans which belonged to the most elite of Scythian nobility: the Melitopol (Terenozhkin, Mozolevsky, 1988), Tolstaya Mogila (Mozolevsky, 1979), Gaimanova Mogila (Bidzilya, 1971), and Babina Mogila (Mozolevsky, Polin, 1987). In addition, much work has been accomplished to complete studies on kurgans belonging to Scythian aristocracy that had been excavated partially by pre-revolutionary archaeologists (Shilov, 1961; Leskov, 1974; Boltrik, 1981).

The excavations conducted over many years on the Kamenskoye old fortified settlement site in the lower Dnieper area (Grakov, 1954) and the recent studies of settlement sites which date from the late 5th century B.C. to the beginning of the 3rd century B.C. have been significant in the reconstruction of Scythian history (Abikulova, Bylkova, Gavrilyuk, 1984). Many new facts have been accumulated as a result of systematic excavations of the Elizavetovskoye old town site and its adjacent cemetery located near the Don River Delta (Brashinsky, Marchenko, 1980; Brashinsky, 1973).

Significant materials have also been obtained by Soviet archaeologists during their work in the forest-steppe zone of the north Black Sea region. For example, during the 1950s Soviet archaeologists discovered the pre-Scythian sites of the Belogrudovskaya and Chernolesskaya cultures which enabled A.I. Terenozhkin to retrace the basis on which the Scythian population and culture evolved in the fluvial of the middle Dnieper River (Terenozhkin, 1961). Data of fundamental importance have been obtained from excavations on the old town sites, settlements, and kurgans in the basins of the Vorskla, Severskii Donetz, Psel, and Middle Don rivers (Melyukova, 1989). This data includes information regarding the interaction between the nomad tribes of the steppe and the sedentary agrarian pastoral population of the forest-steppe.

The archaeological data accumulated during the Soviet period and the processing of the data from earlier excavations enabled Soviet researchers to prepare a detailed description of the material culture of the Scythian nomads in the steppe as well as of their sedentary neighbors in the forest-steppe. Additional information was gleaned on economic and production activities as well as on various aspects of art and spiritual concepts. However, despite the undeniable achievements, Scythologists face many unsolved questions stemming from the scarcity of archaeological sources and from the the fragmentary and debatable historical sources available to them.

This essay does not allow for full elucidation of all of the debatable issues and suggested solutions. Therefore, I shall limit myself to what I perceive are the most important issues. The first issue is one concerning the origins of the Scythian people and their culture. This is a problem which has challenged many generations of scholars. The written sources do not give a simple answer as to whence and when the Scythians appeared in the North Black Sea region. The three versions offered by Herodotus (IV, 5-11) are contradictory and can be interpreted in different ways (Murzin, 1990 and the indicated bibliography). Unfortunately, the archaeological materials have not allowed scientists to answer these questions fully either. Nevertheless, as more material becomes available, archaeologists are better able to study the Scythian people and their culture as the new group formation that took shape in the North Black Sea region and in the North Caucasus somewhere around the beginning of the 7th century B.C. Local tribes joined in the process of formation of the Scythian population. This fact historically connects the Scythians with the local population of the Bronze Age which became a nomadic population in the 9th century B.C. and with the nomads arriving from the East. However, it is not known from where, exactly, the eastern component came from and how significant this group was in terms of contributing to the formation of the Scythian ethnos (Murzin, 1990). The Scythian formation of military campaigns against the countries of Ancient Near East was also important. It was as a result of the contact with these people that the Scythian chieftains came to value items of luxury and began to imitate Oriental rulers. The

Scythian culture was enriched by various Near Eastern elements. Their art style absorbed certain themes, technical acuity became a part of their culture, and their interpretations of stylistic elements resulted in the emergence of the unique Scythian animal style.

Questions about what territory was under the control of the Scythians during their centuries of existence and of the ethnogeography of Scythia in connection with the data provided by Herodotus remain debatable even today.

Herodotus depicts Scythia as square shaped with each side equal to 20 days of traveling or to 4,000 stadia. Its southern border occupied the Black Sea coast from the delta of the Ister (Danube) to the Cimmerian Bosporus. The western border was located along the Ister River and the eastern boundary bordered the Tanais (Don) River. The northern border was drawn by Herodotus in accordance with his knowledge of the settlement pattern of the non-Scythian tribes (Herodotus, IV, 101). Until very recently, this passage from Herodotus was accepted by a majority of scholars. The only point of disagreement among scholars has been related to the type of stadia used to measure the length of the Scythian territory boundaries and as to how these boundaries should be drawn on the modern map (Blavatsky, 1969; Rybakov, 1979). It is only recently that I.A. Shishova (1981) was able to demonstrate in her analysis the conditional nature of the Scythian quadrangle that Herodotus documented and his method of measuring distances in the days of traveling over land or by water. Her conclusion suggests that, in solving the question of the boundaries of the Scythian territory, one cannot rely exclusively on Herodotus' data.

Moreover, the newly accumulated archaeological data indicate today that Scythia could have existed within the borders drawn by Herodotus only from the late 6th century B.C. (Map 3). During the 7th-6th centuries B.C. the territories populated by Scythians included also the flat country of the North Caucasus. It was here that the military had their headquarters while they were enacting their campaigns in the Near East (V.G. Petrenko, "Scythian Culture in the North Caucasus"). The shift of the main body of Scythians from the North Caucasus to the North Black Sea area took place in the 6th century B.C. but it was only by the end of that century that Scythia's borders between the Ister and the Tanais rivers became fixed (Murzin, 1984, p. 97).

The Scythian graves of the 7th-6th centuries B.C. found in the steppes of the Black Sea and Azov Sea areas are not numerous. About 20 of them belonged to this particular period. In the 5th to the early 3rd centuries B.C. the number of graves rises to more than 2,000 (Chernenko, Bessonova, 1986). For some reason in the 7th-6th centuries B.C. the steppes of the Black and Azov Sea areas were probably unfit for habitation. As early as the 7th century B.C., except for the North Caucasus, the Scythians had already penetrated into the territory of the indigenous sedentary agrarians of the forest-steppe located around the southern outskirts of the right bank of the middle Dnieper River area. From that time on many articles of the nomad military way of life were imbedded in the daily life of the local population which began building fortified settlements against the nomads (Il'inskaya, 1975; Skorii, 1987). During the same 7th century B.C. some Scythian military groups moved farther west and reached the Transylvanian plateau and lent originality to the local culture (Vasiliev, 1980; Marinescu, 1984).

The territory of terraced forest-steppe in the middle Dnieper left bank area was penetrated by nomadic Scythians at the end of the 7th century B.C. after the completion of their Near Eastern military campaigns in the early 6th century B.C. It should be noted that the ties with the North Caucasus are traceable here much more distinctly than in the Dnieper right bank area (Il'inskaya, 1968; Grigoriev, 1987). At the same time a new wave of nomads was coming to the right bank area where fortified

towns were built on the southern borders of the area and also in the inner localities of the forest-steppe zone (Kovpanenko, et al., 1989).

In terms of the issue of ethnogeography, archaeology is not of much help in resolving many of the questions. In addition, there exists more than one version of the documentation that maps the Scythian tribes and their neighbors as mentioned by Herodotus (Rybakov, 1979; Terenozhkin, Mozolevsky, 1988). The issue of localizing the Callipidae, nomadic Scythians, and Royal Scythians is controversial. Using Herodotus as a guide, modern researchers place the Callipidae in the vicinity of Olbia, on both banks of the lower Bugh River and west of the Dnieper River. These researchers ascribe to them and their Alazon neighbors all of the kurgan necropoleis of the lower Bugh River area up to the forest-steppe. The steppes of the Azov Sea area, the left bank of the lower Dnieper River, and Crimean steppe were occupied by nomadic Scythians and Royal Scythians but no distinct border can be drawn as yet. Judging by the archaeological materials of the 6th-5th centuries B.C., the territories which the Scythians roamed stretched west up to the Danube River and to the lower reaches of the Prut River. Further west the lands of the Getae stretched. The east frontier position was occupied by nomads of the lower Don steppe while the Volga-Don steppes were inhabited by Sauromatians (K. Smirnov, 1964). The Georgi Scythians who were first described as agrarians and as cattle breeders based on a more recent interpretation of the term "georgoi" by V.I. Abayev (1980) are located on both banks of the Dnieper River next to the nomads. Presently, however, it does not seem possible to connect any of the archaeological sites with either of these groups. As before, there is no unified opinion regarding the location of the "pakhari" (ploughman) Scythians who lived, according to Herodotus, higher than the Alazons (Herodotus, IV, 17, 52). The prevailing opinion suggests that these tribes were situated in the forest-steppe between the Yuzhnii Bugh and the Dnieper rivers. B.N. Grakov and, more recently, B.N. Mozolevsky suggest that the "pakhari" Scythians resided somewhere on the northern borders of the steppe in the Bugh-Dnieper interfluvial (Grakov, 1971; Terenozhkin, Mozolevsky, 1988). In his last work, M.I. Artamonov used the term "pakhari" Scythians to mean all of the agrarian population of Eastern Europe from the Don River to the Dniester River (1971).

Some researchers believe the "pakhari" Scythians lived in the forest-steppe zone and that their northern neighbors, the Neuri, lived farther north in the areas of the Milogradskaya Culture, while B.N. Grakov and B.N. Mozolevsky connect the Neuri with those groups of monuments which are ascribed to the "pakhari" Scythians.

The location of the Androphagi and the Melanchlani has remained at issue, while the Budini and the Gelonus are believed to have owned the left bank lands of the middle Dnieper River area up to the middle Don River. There exists also other documentation which does not correlate with the data given to us by Herodotus (Il'inskaya, 1977, pp. 73-93; Rybakov, 1979, pp. 162-163).

Although the Scythian influence strongly affected the sedentary agrarian-pastoral tribes of the forest-steppe of Eastern Europe the culture retained many local traits which made it different from the nomadic Scythian culture of the steppe of the North Black Sea and Azov Sea area. These differences are most distinct in the burial traditions, pottery, and local decorations. It is common in Soviet Scythology to recognize two zones or two cultures, the steppe culture or zone as inhabited by Scythian proper Iranian-speaking nomads and the forest-steppe one which was populated mostly by non-Scythians tribes (Map 3). The ethnic identities of these tribes have not been determined definitely as yet. Hypothetically, the forest-steppe population of the Dnieper Yuzhnii Bugh interfluvial can be classed as pre-Slavic (Terenozhkin, 1961) and the population of the mid-Dniester River and

Prut River area as Thracian (Melyukova, 1954). The ethnic composition of the left bank population was complex and included people who came from the right bank mid-Dnieper River area, some descendants of the local Bronze Age tribes, and some newly arrived people from the steppe or the North Caucasus (Shramko, 1987).

In addition to the two cultures local variations are recognizable especially in the forest-steppe zone. The archaeological sites located around the lower Don River and in the Crimean steppes stand out as rather markedly different from all of the others.

During its formative period and at the early stage of its existence the Scythian culture was not isolated from the contemporary cultures of the Iranian-speaking nomads of the other regions of Eurasia and shared much in common with them such as their arms, horse harnesses, and animal style art. The Scythian culture eventually acquired an increasing number of traits which differentiated it from the neighboring and the distant nomadic cultures. Of particular importance were the relations of Scythians to the surrounding local sedentary tribes and the Greeks who founded their settlement on Berezan island in the middle of the 7th century B.C. In the next century these same groups founded Olbia and a number of other towns and settlements on the northern coast of the Black Sea. Relations with the Greek merchants were mutually beneficial and deeply affected both the nomad population and the sedentary agrarians of the forest-steppe and their aristocracies. The latter profited greatly from trade with Greek merchants. It was in the 4th century B.C. that the Scythian culture was permeated with elements of the Greek one. The Greek workshops in Panticapaeum were producing on order expensive arms, horse harness decorations, cultic vessels made from precious metals, gold plaques to decorate clothing, head gear, and foot wear for the members of the Scythian aristocracy. To ornament these artifacts Greek masters made use of themes from Greek mythology, which were probably well known to the Scythians, as well as those from Scythian legends (ornamentations of the Chertomlyk vase, vessels from the Gaimanova Mogila and Voronezhskii kurgans, pectorals from Tolstaya Mogila and from other graves) and typical Greek art vegetation designs. The 5th century B.C. vegetation designs became an organic part of the Scythian animal style in which various decorations were produced both by Greek and local masters. Under the Greek influence some changes were introduced into the Scythian forms of arms and horse harnesses (Figs. 1-27, 29-30). These changes were developed according to Scythian laws and were gradually perfected for more effective applications.[3] For example, in the 4th century B.C. the typically Scythian composite armor had characteristics of Greek armor shoulder guards added to it. Under the influence of the Thracians in the 4th century B.C. Scythian armorers began producing single-bladed swords based on the Thracian battle knives with handles and crosspieces typical of the two-bladed akinakes. For the purpose of dating Scythian arms and other artifacts, archaeologists resort to studying accompanying imports, most specifically the ancient Greek pottery. In this way archaeologists distinguish the Early Scythian Period of the 7th-6th centuries B.C., the Middle Scythian Period of the late 6th-5th centuries B.C., and the Late Scythian Period of the 4th to early 3rd centuries B.C. The Latest Scythian Period dates from the 3rd century B.C. to the 3rd century A.D. and is defined as containing Sarmatian tribes within the Smaller Scythia (see Chapter 3, "Scythian Culture in the Crimea"). The changes in the types of Scythian artifacts were happening in the steppe zone and forest-steppe of the North Black Sea area simultaneously which suggests a close and constant interaction between the inhabitants of both zones. Moreover, according to B.A. Shramko (1971), the major producers of metallic arms and horse harnesses had been metallurgical workshops located in the forest-steppe until the time of the appearance of the Kamenskoye fortified settlement located in the steppe zone in the late 5th century B.C. There

had been no permanent settlements in the steppe of the North Black Sea area which would imply that no developed metallurgical industry among the Scythian nomads existed prior to this time period. The fortified settlement built on the left bank of the Dnieper River on the territory occupied today by the town Kamenka and Znamenka village was about 12 km2 in area and was protected on all sides by the steep banks of the Dnieper River, Konka River, and the Belozerskii coastal salt lake. On the steppe side, in the east and southwest, the settlement was fortified with earthen ramparts and moats. The settlement is abundant in terms of remains of iron and bronze casting products found around each house. B.N. Grakov believed that metallurgy was the main industry of patriarchal families and that the settlement itself was an industrial, trading, and political center of Scythia of the Atheas period (Grakov, 1954). Simultaneously, small unfortified settlements sprang up and existed on the banks of the lower Dnieper River and its tributaries in the 4th-3rd centuries B.C. (Abikulova, Bylkova, Gavrilyuk, 1987). In the 4th century B.C. one more fortified settlement emerged in the Don River Delta at Elizavetovskaya stanitsa which was the area of an earlier winter camp. According to researchers, the settlement was an administrative and trading center of the lower Don River and northeastern Azov Sea regions (Brashinsky, Marchenko, 1980, 1984). Another fortified settlement dated from the 4th to early 3rd centuries B.C. in the steppe zone of the North Black Sea area was found on the left bank of the lower Dniester River at Nadlimanskoye village. Running next to it along the bank of the Dniester River estuary there is a chain of small open settlements that existed simultaneously with the Nadlimanskoye fortified settlement (Melyukova, 1979).

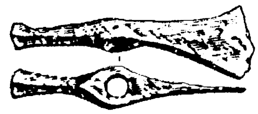


FIG. 1
SCYTHIAN AXE
6TH-5TH CENTURIES B.C.

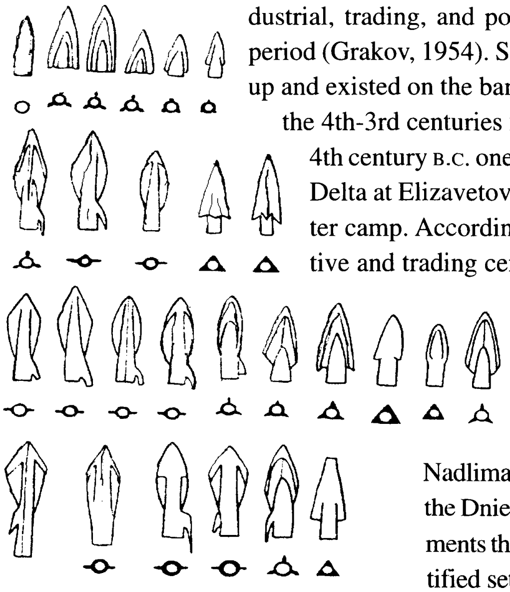


FIG. 2
SCYTHIAN ARROWHEADS
7TH-5TH CENTURIES B.C.

The emergence of fortified and open settlements in the North Black Sea and Azov Sea areas indicates that beginning from the late 5th century B.C. a process of nomadic settling took place in Scythia which was caused by the operation of a series of factors, especially changes that were taking place in the economy and social relations during the reign of King Atheas in Scythia. However, in the 4th to early 3rd centuries B.C. nomads still continued to play a leading role in the life of the Scythian kingdom. Decisive transition to a sedentary settled way of life took place only at the end of the 3rd century B.C.

The burial sites of Scythians in the steppes of the North Black Sea and Azov Sea areas are represented mostly by kurgan cemeteries, with only 4 kurganless cemeteries of the 5th and 4th centuries B.C. and a few solitary graves of the 4th century B.C. known today. A few graves of the 7th-6th centuries B.C. are scattered in various places over the steppe. They are mostly sunk in the kurgans of the Bronze Age and only two of them are classified as aristocratic. These are the Mel'gunovskii Kurgan not far from Kirovograd city and Krivorozhskii Kurgan on the Kalitva River.

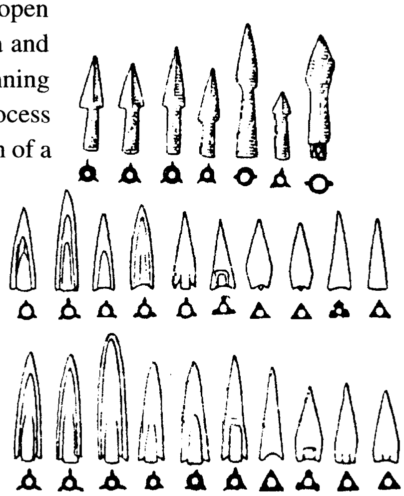


FIG. 3
SCYTHIAN ARROWHEADS
4TH CENTURY B.C.

In the early 5th century B.C. the number of kurgans with primary Scythian graves under them increased markedly. There appeared groups of Scythian kurgans with both primary and secondary graves of ordinary community members. There was also an appreciable increase in the number of rich graves of Scythian nobility. However, a majority of the presently known large and rich kurgans conditionally called "royal" (tsarskii) are dated to the 4th century B.C. and are located mostly on both banks of the lower Dnieper River and some of them have been discovered in the vicinities of Berdyansk city in the Azov Sea area. Each royal Scythian kurgan is surrounded by smaller ones with graves containing men-at-arms and members of the royal families. Also dated to this time period are kurgans containing graves of ordinary Scythian community members who were both nomadic and sedentary. These cemeteries often contain anywhere from 10 to 100 kurgan embankments. The height and diameter vary from hardly visible, to 1.5 to 2 m to 15 to 20 m. Within the groups of kurgans there are usually one or two kurgans of considerable height, while the rest of the kurgans are arranged around them (Grakov, 1962, pp. 56-113; Berezovetsh, 1960, pp. 127-140; Terenozhkin, Il'inskaya, Mozolevsky, 1977, pp. 152-199).

The kurgan embankments of the 6th-4th centuries B.C. which were raised over the graves of ordinary community members were made of black earth taken from the immediate vicinity. Where there were stone outcroppings such as in the lower Bugh River area, near the Dnieper River rapids area, and in the lower Dniester River area, stone dolmen rings are also found at the base of the embankment. In some cases more or less significant quantities of stone are located in the embankment proper.

The process of constructing embankments over the graves of Scythian kings and noblemen was extremely labor intensive. Although the sizes of the kurgans in this category of Scythian population varied in the 5th-4th centuries B.C.most measured 3 to 21 m in height and 30 to 350 m in diameter. About 30 such kurgans are known today in the lower Dnieper River area (Mozolevsky, 1979, p. 152, Table 4). The largest kurgans measured 14 to 21 m in height. Such kurgans include Aleksandropolskii (21 m), Chertomlyk (19 m), Oguz (20 m), Bol'shaya Tsimbalka (15 m), and Kozel (14 m).

A majority of the royal Scythian kurgans were built in stages. To raise their embankments sod or specially made rolls of turf were used. Royal kurgans often have high and wide façades supported by large stones set at the base of their embankments. Both kurgans of ordinary community members and royal members were surrounded by ditches where the width and depth depended upon the size of the respective embankments. Each ditch had one or two breaks in it.

Scythian warriors' stone sculptures were often raised at the tops of the kurgans (Fig. 28). Archaeologists usually find these sculptures either in the embankments or in the kurgan ditches indicating that they have fallen from their original placement. The ancient ground level under the kurgans, ditches, and sometimes embankments of the Scythian kurgans of the 6th-4th centuries B.C. usually yield remains of funeral feasts. Specifically found in laymen's kurgans are bones of domesticated animals, fragments of amphorae and molded pottery, and only from time to time, some items of horse harnesses and arrowheads.

In the kurgans of members of the Scythian aristocracy of the 4th century B.C. and, especially, in those belonging to persons of higher social standing the same tradition is discernible in the remains of grand funeral feasts and in the gift offerings to the deceased. The embankment of the Chertomlyk Kurgan was the most rich in such gifts which included nearly 250 bits with cheekpieces as well as numerous bronze and gold bridle decorations, some remains of a saddle, 10 bronze finials, and many arrowheads. It is interesting to note that while both ordinary kurgans and larger kurgan embankments of Scythian nobility could be raised over graves of men and women alike and that the

secondary graves in the kurgans of Scythian nobility could belong similarly to men and women, there was no single rich woman's kurgan found without a secondary grave belonging to a male, infant, or teenager.

Researchers agree that many kurgans of the 4th century B.C. served as family tombs as is exemplified by the Tolstaya Mogila where the primary grave belonged to a noble male warrior. Later, a rich woman, probably his wife, was arranged in the same kurgan and was accompanied by 4 servants. Still later, a child was buried in the same kurgan.



FIG. 4
SCYTHIANS AS DEPICTED IN THE 4TH-3RD CENTURIES B.C.
GORYTUS AT TOP

The most common form of burial structures of the 7th-5th centuries B.C. was a simple rectangular or semi-oval pit. Dating to the same time period are a few wooden tombs and catacomb burial structures. The wooden tombs were registered mostly on the ancient ground surface (Melgunovskii Kurgan) and often contain evidence of fire (V. Olkhovsky, 1978, p. 83). Catacombs appeared among the Scythians not later than in the 6th century B.C. In the majority of regions of the steppe North Black Sea area they became the predominant form of Scythian burial structures only in the 4th-3rd centuries B.C. (Fig. 31).

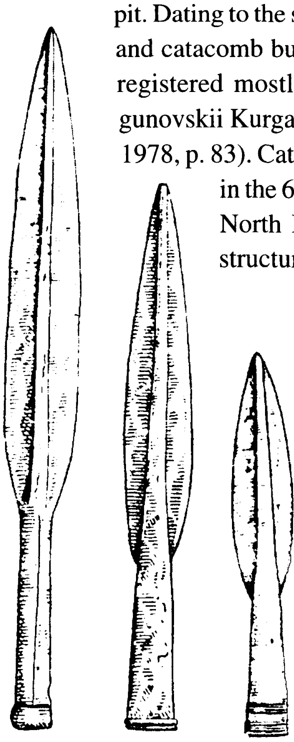


FIG. 5
SCYTHIAN SPEARS
7TH-6TH CENTURIES B.C.

The first topological classification of the catacomb structures from the Scythian kurgans of the North Black Sea area was offered by B.N. Grakov (1964) and was later developed and supplemented by Olkhovsky (1977). According to Olkhovsky, there are 10 types of catacomb structures known in steppe Scythia of the 6th-3rd centuries B.C. The location of the longer axes of the entrance pits and chambers with reference to each other is indicative of their location in Scythia (Olkhovsky, 1977, p. 109). In the 6th century B.C. only the first type of catacomb is known. This has a parallel arrangement of the entrance pit and the chamber both having east to west orientation (Fig. 32).

Entrance to the chamber was placed in one of the longer sides of the entrance pit. The chamber itself is not large and is meant to hold one body with some ac-

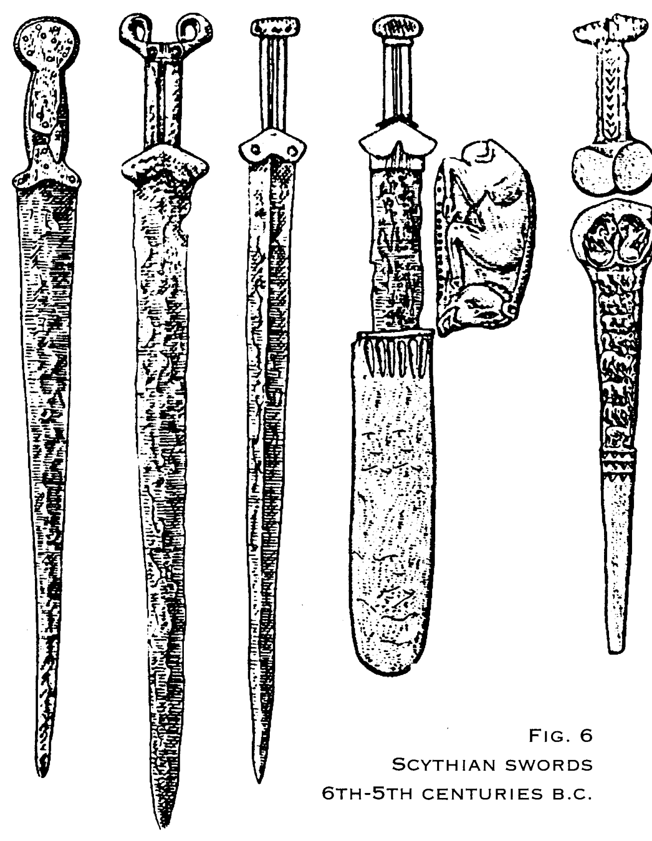


FIG. 6
SCYTHIAN SWORDS
6TH-5TH CENTURIES B.C.

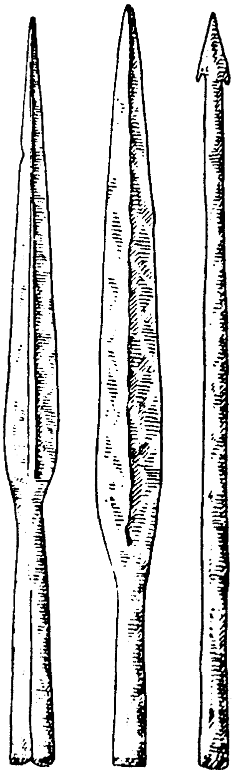


FIG. 7
SCYTHIAN SPEARHEADS
4TH-3RD CENTURIES B.C.

companying artifacts. The entrance from the pit to the chamber was covered with boards, poles, or stones. Catacomb structures of the 5th century B.C. include not only the simplest but also some more complicated variations of the first type. They have a developed and spacious chamber, sometimes two, which sheltered rich Scythians. While in the ordinary burial grounds of the 5th and 4th centuries B.C. there are tombs of differing types, they always varied slightly. For example, a catacomb was arranged at one of the narrow sides of the entrance pit and formed a kind of its continuation, or it would run perpendicularly, or at an angle (Fig. 33). All of the catacomb burial structures in the cemeteries of common Scythians are comparatively small in size and depth, the latter usually not more than 2 to 2.5 m.

The catacomb structures of rich royal kurgans are sometimes awesome in size and design and reach from 4 to 14 m in depth. It is difficult to believe that they were built by people with the use of pickaxes and wooden shovels alone. However, all of these catacombs are similar to those in which commoners were buried with only some complex variations (Fig. 31).

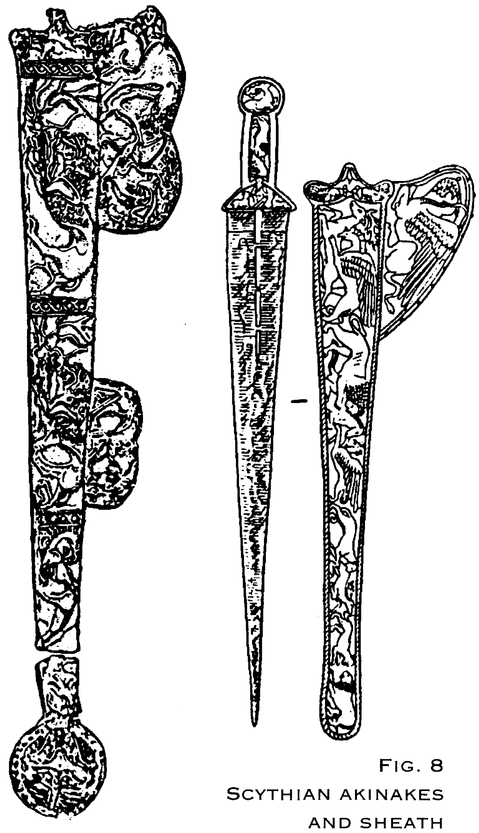


FIG. 8
SCYTHIAN AKINAKES
AND SHEATH
4TH-3RD CENTURIES B.C.

The Oguz Kurgan stands out conspicuously from the rest of the royal kurgans of the lower Dnieper River area. Its burial chamber was built of trimmed stone like the Bosporus vault even though it was situated in a deep pit (6.4 m deep). All of the space between the vault and the pit walls was filled with stone. In three sides of the pit three burial chambers were hollowed out for persons accompanying the main burial. In the kurgan Piat Bratiev in the lower Don River region a tomb containing the remains of a noble was made of crude stone (Fig. 35).

Unlike the designs of burial structures themselves the burial customs did not change much through time. During the 6th to early 3rd centuries B.C. the deceased were invariably buried stretched out on their backs with their heads oriented west or northwest as was the practice from the very beginning of the Scythian period. Varied orientations are rare.

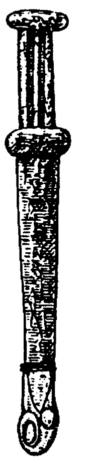


FIG. 9
SCYTHIAN DAGGER
4TH-3RD CENTURIES B.C.

As in the 7th-5th centuries B.C., kurgans containing Scythian graves dating to the 4th-3rd centuries B.C. were predominantly twin. Collective graves contained 2 to 6 bodies each that had been buried simultaneously. The repeated use of the same burial structures was rare and occurred only in the 4th-3rd centuries B.C.



Fig. 10
Illustrations of
Scythian armor

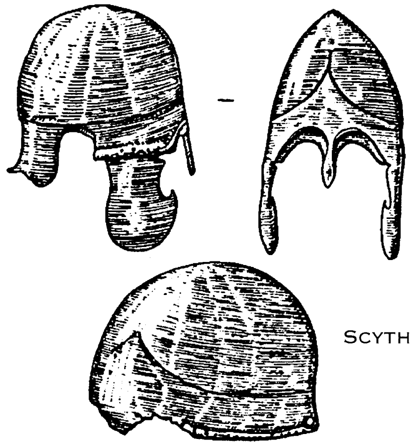


Fig. 11
Scythian helmets

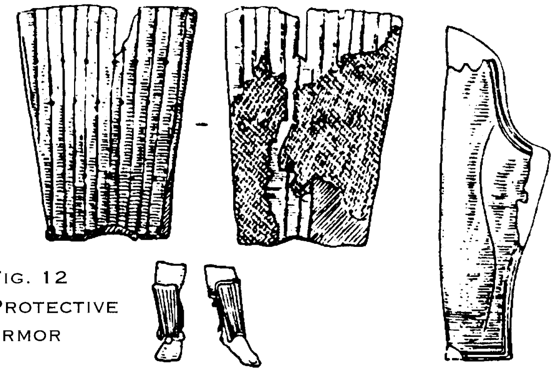


Fig. 12
Protective
armor

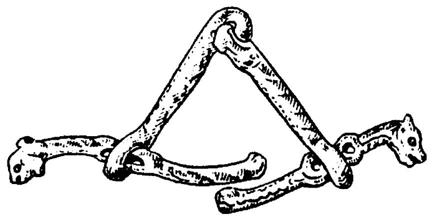


Fig. 13
Scythian bit
and psalia
5th century B.C.

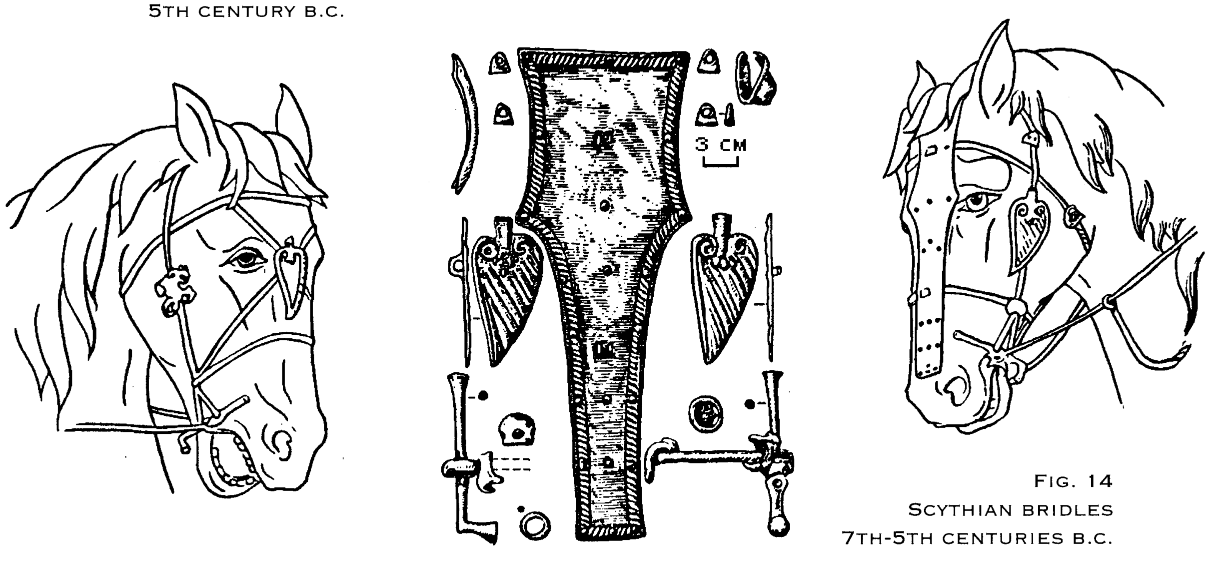


Fig. 14
Scythian bridles
7th-5th centuries B.C.

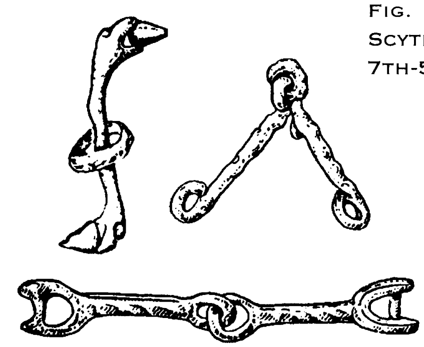


Fig. 15
Scythian bits
7th-5th centuries B.C.

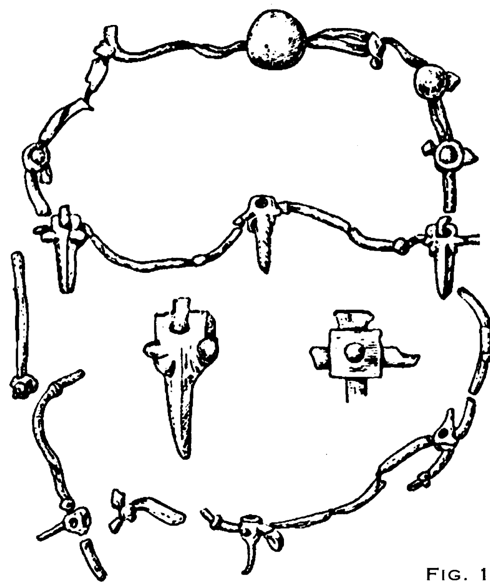


Fig. 17
Scythian horse accoutrements
7th-6th centuries B.C.

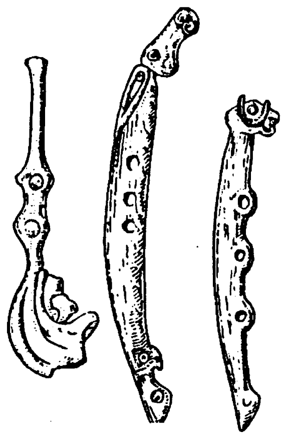


Fig. 16
Scythian psalia
7th-5th centuries B.C.

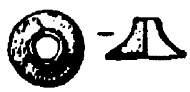


Fig. 18
Scythian strap
finial

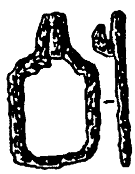


Fig. 19
Scythian horse buckle





Fig. 20
Scythian horse
accoutrements
4th-3rd centuries B.C.

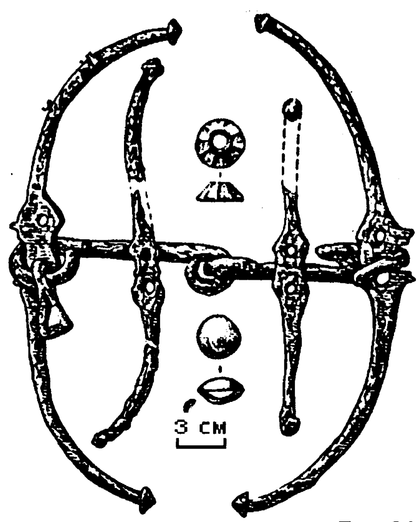


Fig. 21
Scythian bridle elements
4th-3rd centuries B.C.

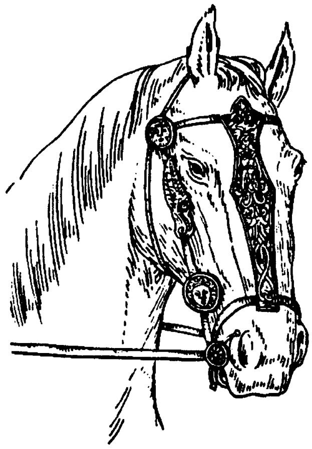




Fig. 22
Scythian bridle
4th-3rd centuries B.C.

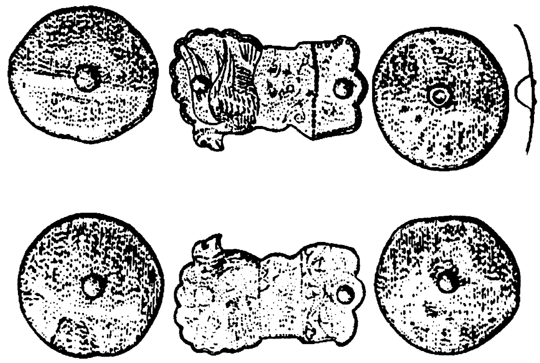


Fig. 23
Scythian Horse
accoutrements

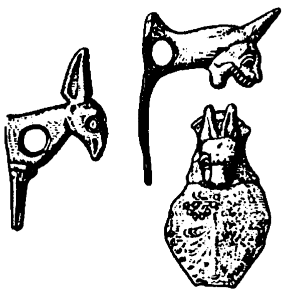


Fig. 24
Scythian horse
accoutrements

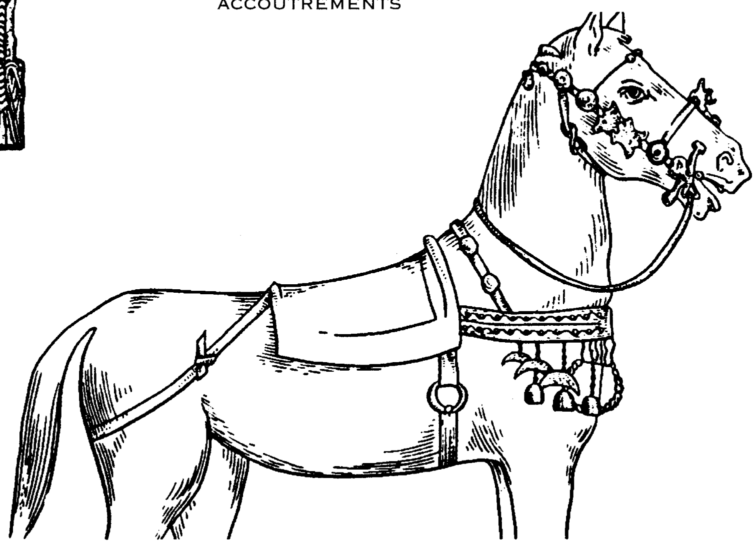


Fig. 25
Scythian horse saddlery
4th-3rd centuries B.C.

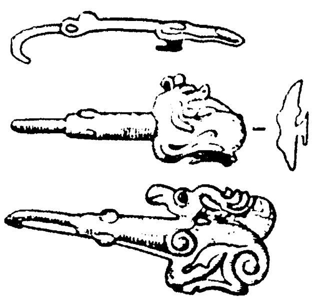


Fig. 26
Scythian belt hooks

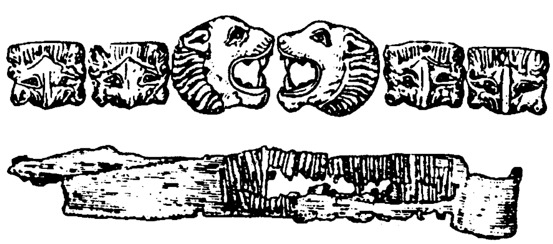


Fig. 27
Detail of Scythian
belt plaques

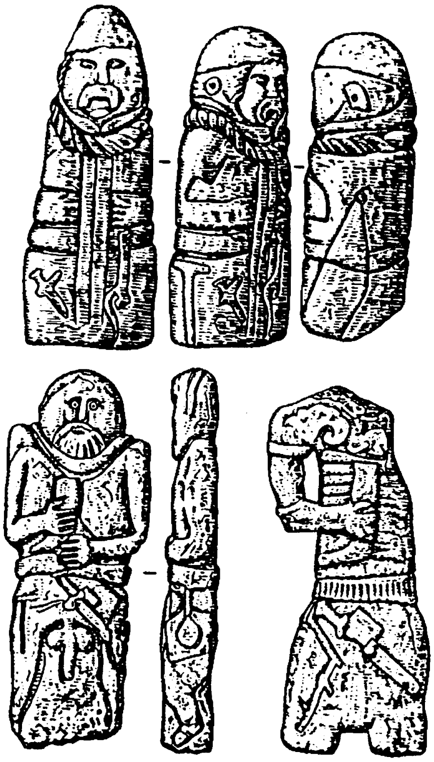
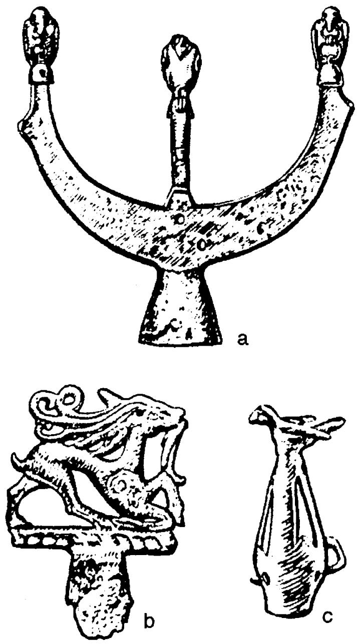


FIG. 28
SCYTHIAN STONE
FUNERARY SCULPTURE

The mats on which the dead were placed in the graves were made of cane, grass, bark from different types of trees, or, less frequently, they were made of wool, skin, or felt. Wooden floors and latticed stretchers were also used for the same purpose. Only in the kurgans belonging to the rich were the bodies buried in coffins and wooden sarcophagi. Sometimes the heads of the dead rested on wooden supports or on grass pillows.

Within cemeteries of the ordinary population of Scythia there is at least one grave containing the remains of a rich man or woman. Ordinary members of Scythian society were always accompanied in their graves by a small set of artifacts. Both the 6th-5th and the 4th-3rd centuries B.C. the graves of male nomads invariably contained some armament pieces, usually items such as a quiver with some arrows or a set of arrows alone. In addition to arrows the graves often contained one or two spears. Rarer findings include swords or daggers, and even more rarely, a metallic shield or armor set. Horse harness items in such



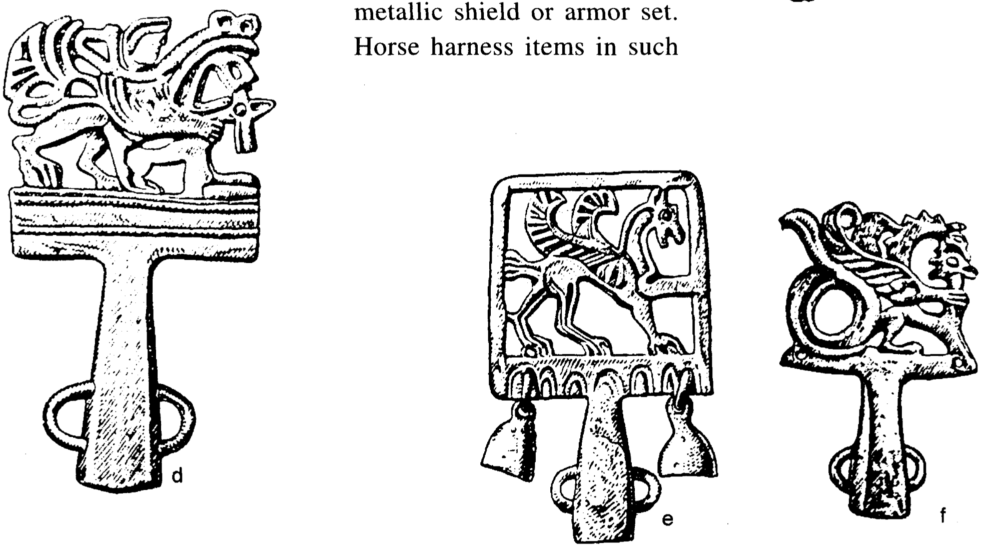


FIG. 29
SCYTHIAN POLE TOP FINIALS WITH RATTLES

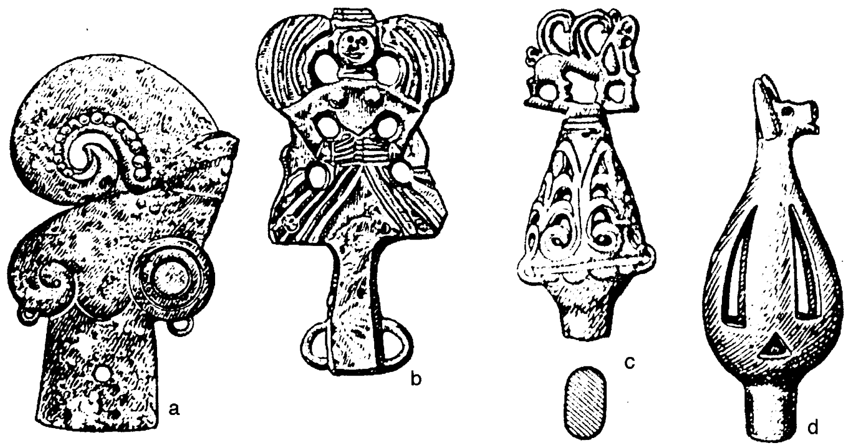
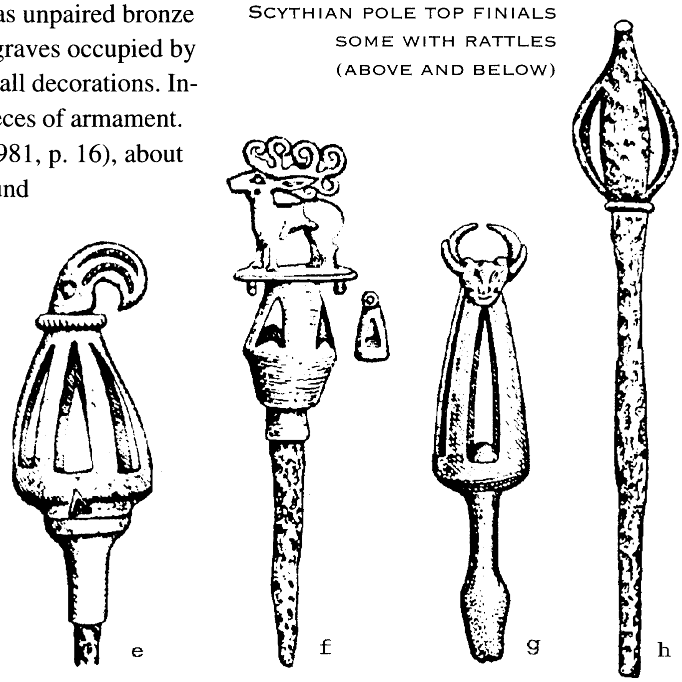


FIG. 30
SCYTHIAN POLE TOP FINIALS
SOME WITH RATTLES
(ABOVE AND BELOW)



graves are rare and bridled horses are even less frequent. Sometimes graves of warriors yielded jewelry such as unpaired bronze earrings or bronze or iron bracelets. Ordinary graves occupied by a female yielded various spindlewhorls and small decorations. Individual female graves also contained some pieces of armament. According to E.P. Bunyatyan's calculations (1981, p. 16), about 27% to 29% of graves containing women found dating from the 4th through 3rd centuries B.C. contained armament.

Both male and female graves almost invariably contained some animal food such as mutton shoulder or, less frequently, horse or cattle meat. Meat with a knife stuck in it was placed usually on a wooden dish or tray at the head of the deceased.

In the cemeteries situated in the vicinities of Greek towns both male and female graves of the 4th century B.C. often contained some Greek amphorae and black burnished drinking vessels, a kantharoi, or a kylix, or Scythian pottery standing next to the sacrificial meat. Amphorae and Greek pottery are much rarer in the graves of ordinary community members located in the inner steppe areas.

The warriors buried with a complete set of defensive and offensive armament under low kurgans (under 1 m high) most likely occupied a special position in society. Most sites containing the remains of warriors have been found in the kurgans near Novaya Rozanovka village in the Nikolayevskaya region and at Krasnii Podol village in the Kherson area (Shaposhnikova, 1970; Polin, 1980).

In some of the Scythian cemeteries the very poor graves of men and women contain no artifacts. This suggests the existence of marked property differentiation within the layer of ordinary free Scythian people. E.P. Bunyatyan has broken the 4th-3rd centuries B.C. Scythian population into

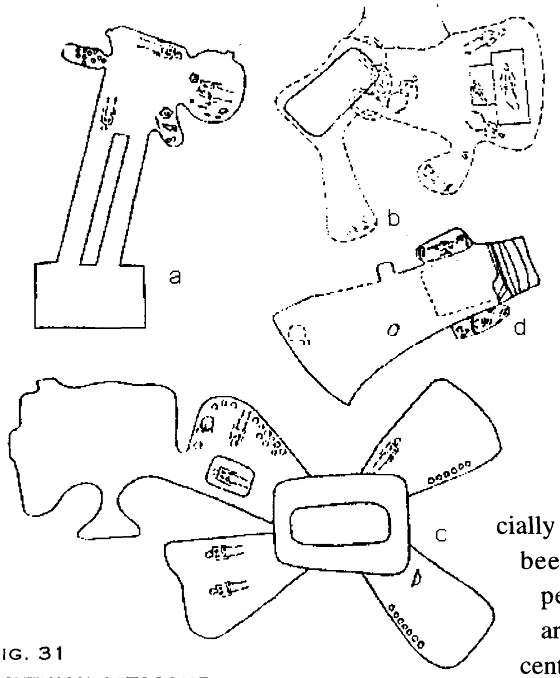


FIG. 31
SCYTHIAN CATACOMB "TSAR" BURIALS
A. SOLOKHA
B. TOLSTAYA MOGILA
C. CHERTOMLYK
D. KHOMINA MOGILA

5 social categories: 1) the poor members of the population, 2) the main mass of ordinary producers, 3) the rich strata of the ordinary population, 4) the very wealthy members of the ordinary population, and 5) the lower layer of the Scythian aristocracy. His calculations were based on the findings from 534 graves located in 9 cemeteries of the lower Dnieper River area (Bunyatyan, 1981).

Among the kurgans classed as belonging to Scythian nobility, no two are similar in the size of the burial structure or in the burial ritual. A majority of Scythian kurgans have suffered from plundering and it is impossible to ascertain all of their diversity in terms of individual wealth and in the composition of the accompanying artifacts. Notable differences in some of the kurgans include findings of horses that have been buried in specially made pits and of bodies of persons who appear to have been killed deliberately in order to accompany a primary person. In other kurgans deliberately killed people and horses are absent and their accompanying artifacts are less magnificent as well. The custom of burying horses in separate graves is traceable back to the 5th century B.C. (Mozolevsky, 1980, pp. 86-100). The practice of burying dependent persons who accompany rich men and women emerged in the 4th century B.C.

The number of horses buried in special graves varies from 1 to 11 but most contain from 1 to 3 horses. As a rule, horses were buried with rich bridle and breast sets (Figs. 14, 17, 21, 22, 25) and with decorations of gold, silver or bronze elaborated with the animal style depictions (Figs. 13, 15, 16, 20, 24, 44, 45 a-b, d, 46a, 48a). Some of the graves have yielded remains of saddles. Researchers believe that the horses were meant for riding. Rather frequently, found next to horse graves were graves of equerries. Examples of such burials include Tolstaya Mogila where adjacent to 2 horse graves 3 equerries had been placed, and in Chertomlyk, 2 equerries had been included in the burial.

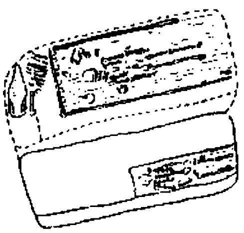


FIG. 32
SCYTHIAN CATACOMB BURIAL
PARALLEL ENTRANCE PIT AND CHAMBER
FOR COMMON PEOPLE
LVOVO KURGAN

The number of dependent persons accompanying noblemen varies in number but is usually between 1 and 5. The property and social status were different evidently for each nobleman. Some noblemen were accompanied to the other world by a rather rich set of personal things while others had no accompanying artifacts at all. The sex and age of the servants buried with the noblemen have not been ascertained in all cases. Some noble Scythian women were accompanied by women and sometimes by men who are thought to have been bodyguards. In the findings where the primary grave belonged to a male the accompanying graves belong usually to men with small quantities of arms. The position of servants in the graves with reference to the main person they accompanied varied and is believed to be a reflection of their lifetime relationship to the master or mistress whom they were accompanying to the other world. The sets of accompanying artifacts from the graves of noble per-

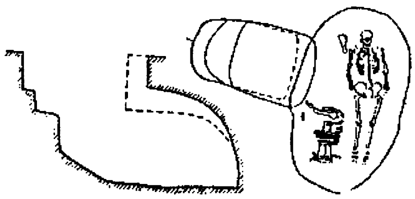


Fig. 33
Scythian catacomb chamber perpendicular to the entrance pit for burials of Common people
Storogevarya Mogila group

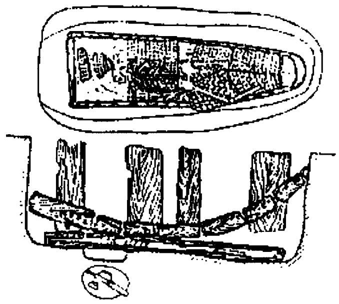


Fig. 34
Scythian burial
common people
Alexandrovka Kurgan

sons do not reveal standardization although there are some common traits that unite the graves of rich men and women. These artifacts include numerous gold plaques, sometimes more than 2000 which decorated clothes, shrouds, and headdresses (Fig. 49). Some personal decorations found are similar also such as broad lamellar bracelets and rings of gold (Fig. 50 a-d, f). In the graves of noble Scythian women each finger had on it one or more rings. Very characteristic findings in the rich graves of both men and women include golden torques, ritual bowls of silver and some of gilt (Fig. 53), as well as wooden vessels with golden plaques ornamented in the animal style (Fig. 51). The numbers of ritual vessels were between 1 and 10. Ten vessels of the kind have been discovered in Chmyrevaya Mogila only. It is rare that ritual vessels were found next to a body. Usually they were discovered in a special hiding place. For example, in Tolstaya Mogila a rhyton and a bowl made in miniature especially for the burial, were found lying next to the remains of an infant. The woman's grave had no ritual vessels in it at all but at the head of the "tsarina" a few glass bowls and a silver basin were found.

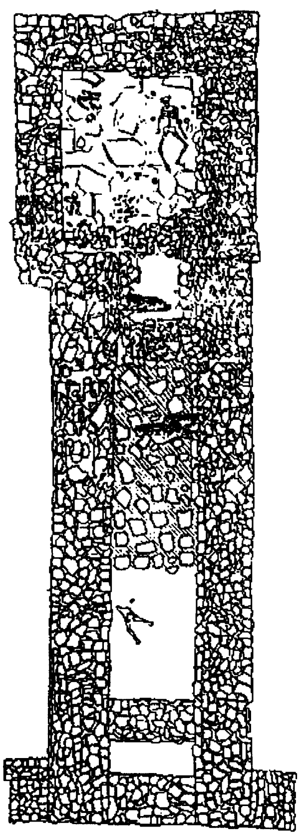


Fig. 35
Elizavetovskii Cemetery
Five Brothers Group

Kurgans of the highest Scythian nobility usually yield amphorae, black-burnished antique vessels for drinking, pieces of domestic utensils, and bronze cauldrons (Fig. 57) containing the sacrificial flesh of a horse, a sheep, or a cow. In some of the richest kurgans domestic utensils were found in a special niche while 10 or more amphorae with wine were found generally not far from the servants' graves. Graves of noble male warriors contained large sets of offensive and defensive armament which included usually several quivers (with arrows) decorated with golden plaques, one or more swords with handles and sheaths bound with gold, some spears and darts and, occasionally, a battle pole-axe. An invariable element of the protective armament in all of the rich military graves was only a scaly armor, which had in some cases a set of gold-planed plaques forming a design on the breast. Shields of iron scales and plaques were put often into the graves, but they have not withstood time well. Compound metal belts are quite common in rich military graves. Not all of the graves contain

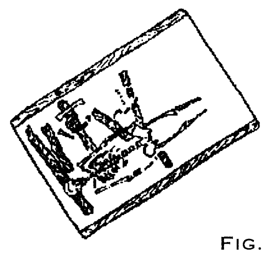


Fig. 36
Scythian burial pit
common people
Podgorodnoe Kurgan

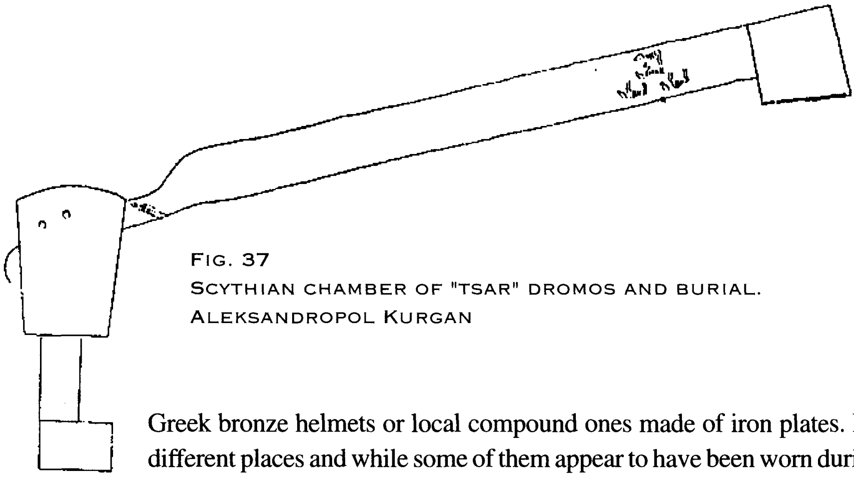


FIG. 37
SCYTHIAN CHAMBER OF "TSAR" DROMOS AND BURIAL.
ALEKSANDROPOL KURGAN

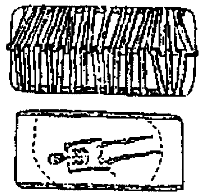


FIG. 38
PLAN OF BURIAL
BOL'SHAYA GOMALSHA

Greek bronze helmets or local compound ones made of iron plates. Pieces of armament are located in different places and while some of them appear to have been worn during the lifetime of the person (Figs. 4, 10) others found in storerooms or hiding places were ceremonial. Those pieces of armament found in hiding places are decorated with gold. In the graves of noble Scythian women armament pieces are much rarer than in those of ordinary women. There was a sword that was found in a rich woman's grave in the northern part of Kurgan 22 at Volnaya Ukraina village. On the whole, the graves of women of the highest Scythian nobility are characterized by necklaces of gold and glass beads, diverse types of temple rings, pendants of gold (Fig. 56) and mirrors (Fig. 59). Greek spindlewhorls carved from bone are rather frequent. In addition to the artifacts mentioned already, burials of the 4th century B.C. nobility yielded various other items of precious metals, bronze, and bone of Greek make.

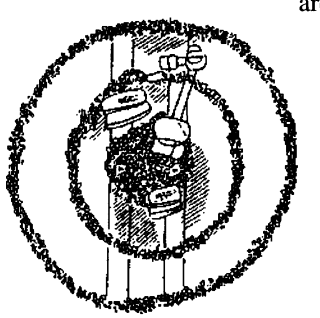


FIG. 39
LVOVO KURGAN AND BURIAL OF ORDINARY COMMUNITY MEMBERS

Hand-built local pottery, much like the funeral ceremony, constitutes a specific trait of the nomadic Scythian culture and is represented by comparatively coarse pots and basins of several types (Gavrilyuk, 1980) whose forms and mode of execution did not change much over time (Fig. 60).

In the forest-steppe of Eastern Europe, 8 local variations of the Scythian culture are recognized. All of them embrace a great mass of sedentary tribes of agrarians and cattle breeders which had much in common in terms of their settlements, in the systems of their defensive works, in the construction of their houses, in the methods of their economy, and in their ideologies and beliefs. A particularly high degree of similarity is traceable in the culture of the population of the middle Dnieper-Bugh interfluvial and of the Vorskla Basin. This was the Chernolesskaya Culture of the 10th-8th centuries B.C. which had its local roots in the region along the right bank area of the middle Dnieper River. The culture was introduced into the Vorskla basin as a result of a migration there of a part of the Chernolesskaya Culture population.

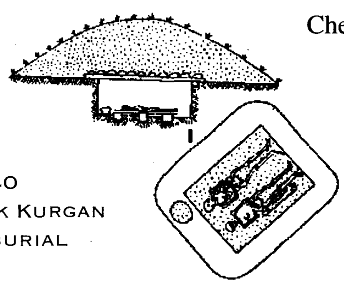


FIG. 40
BELSK KURGAN AND BURIAL

Each local group in the interfluvial of the middle Dnieper and middle Don rivers was quite different in origin but by the 5th-4th centuries B.C. the groups had been obliterated. A.A. Moruzhenko suggests the existence of a peculiar historical-ethnographical or ethno-cultural community which inhabited the territory of the left bank Dnieper River (Moruzhenko, 1989).

Local groups in the forest-steppe of Eastern Europe had fortified and unfortified settlements. The correlation between the two types of settle-



FIG. 41
SCYTHIAN ANIMAL STYLE PLAQUES
7TH-5TH CENTURIES B.C.

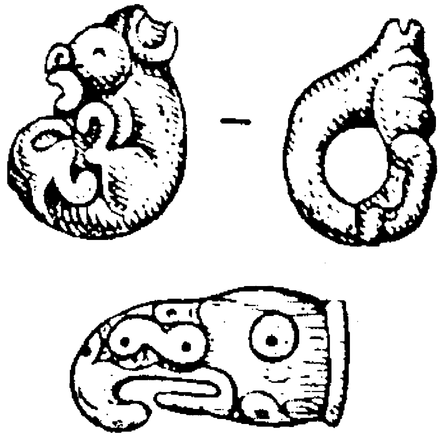


FIG. 42
SCYTHIAN ANIMAL
STYLE PLAQUES
7TH-6TH CENTURIES B.C.

ments has not been ascertained. At present 103 fortified and 313 unfortified settlements are known in the middle Dnieper and Don interfluvial (Moruzhenko, 1989) and 18 fortified and 46 unfortified are known in the right bank mid-Dnieper River area (Kovpanenko, et al., 1989, p. 14). No data on the other areas are available. Fortified settlements were built in the places that were convenient for defense and economic activities. The settlements differ in their sizes from 10 to 30 hectares (small ones) and from 100 to 2000 hectares (large ones). The territory includes both densely built areas and some areas free of houses used to protect domesticated animals. The larger fortified settlements served as political, religious, and industrial centers of tribal unions. The larger fortified settlements are not many in number and only some of them have been studied thoroughly. The best studied settlement is Bel'skoye found in the interfluvial of the Sukhaya Grun River and Vorskla River on the left bank middle Dnieper River. The settlement is the largest in Eastern Europe and occupies a total territory of 4020.6 hectares. Bel'skoye included three other fortified settlements, Zapadnoye, Vostochnoye, and Kuzeminskoye and was protected by powerful earthen ramparts with wooden walls and deep moats. Even today in some places the ramparts reach between 7.5 to 9 m, and the moats are about 5.5 m deep. Beginning at the turn of the 8th-7th century B.C. the Bel'skoye settlement was inhabited by tribes which were carriers of two local variations of the Early Iron Age forest-steppe culture. The Zapadnoye settlement represents a variation connected with the migrants from the right bank middle Dnieper River area and the Vostochnoye fortification belongs to the left bank population which left behind the majority of the sites in the basins of the rivers Psel, Sula, and Severskii Donetz. In the 6th century B.C. the two fortification works and a third, Kuzeminskoye, were surrounded by one common rampart and thus the fortified settlement became the center of the left bank tribal union of Biedini and Geloni. It became the town of Geloni as described by Herodotus. The many years of excavations conducted on the settlement have described its functions as a large industrial, trade, and religious center (Shramko, 1987). The life of the settlement ended in the early 3rd century B.C. as a result of a Sarmatian invasion.

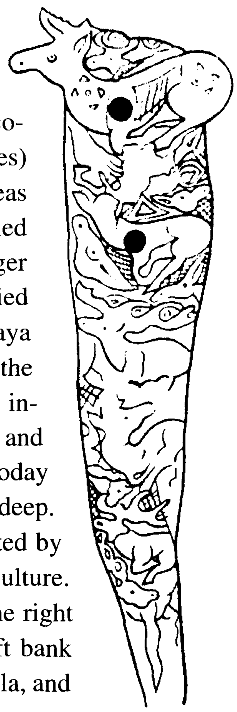


FIG. 43
SCYTHIAN ANIMAL STYLE
(CARVED BONE)
7TH-6TH CENTURIES B.C.

Dwellings in the fortified and unfortified settlements are represented by underground, semi-underground, and surface houses. Apart from dwellings some domestic structures have been

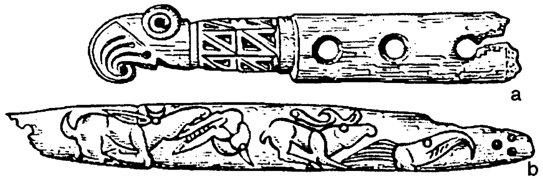


FIG. 44
SCYTHIAN PSALIA WITH ANIMAL STYLE ART
FOREST-STEPPE ZONE
CARVED BONE
7TH-6TH CENTURIES B.C.

recorded on the surface and in pits. For example, 40 dwellings and 50 domestic structures have been unearthed in the Trakhtemirovskoye fortified settlement on the right bank of the middle Dnieper River. It has been determined that the structures clustered in groups with 6 to 8 surface structures, 2 to 3 domestic pits, and an open air oven with a pit in front of it. Researchers believe that each group of the kind belonged to a large family community. In the case of the Bel'skoye settlement there are some notable differences in the character of the building remains within the Zapadnoye and Vostochnoye fortifications. For example, in Zapadnoye only underground dwellings with remains of pillars along their walls and couches have been discovered while in Vostochnoye 46 surface structures and 4 underground structures have been registered. The underground structures differ drastically from those in Zapadnoye. Apart from dwellings, excavations in the Bel'skoye fortified settlement have uncovered a great number of various domestic rooms and pits. Of greatest interest to researchers is the discovery of a smithy with a furnace from the 5th-4th centuries B.C. and also the discovery of a workshop with a bronze smelting furnace (Shramko, 1987, pp. 114-121). The great number of various metallic finds, including various tools, characterize Bel'skoye as one of the largest and earliest metallurgical centers for iron processing, bronze casting and jeweller's art of the Early Iron Age. Remains of such industries are found in some other fortified settlements of the forest-steppe too, but they are considerably less impressive than those found in Bel'skoye. Armament, especially bronze arrowheads are among the metallic artifacts found in fortified forest-steppe settlements of different periods and are typical of the Scythian culture. Items such as unbroken bridles and cheekpieces or their fragments have been recovered. Animal style decorations are found less frequently. On the whole, the cultural levels of fortified and unfortified settlements of the forest-steppe contain a great mass of local pottery sherds, different quantities of imported vessels and amphorae, clay cult figurines, and artifacts made of bone and horn.

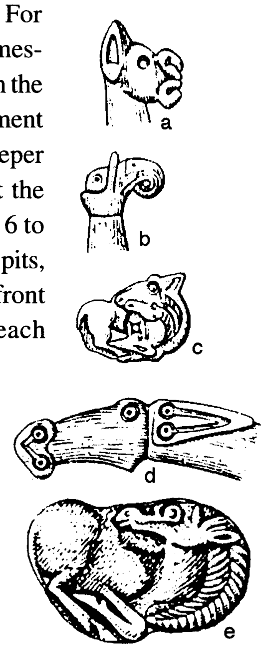


FIG. 45
SCYTHIAN ANIMAL STYLE PLAQUES
FOREST-STEPPE ZONE
7TH-6TH CENTURIES B.C.

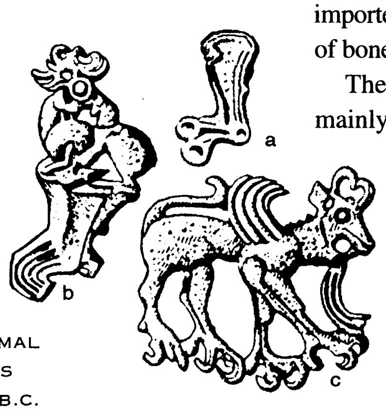


FIG. 46
SCYTHIAN ANIMAL
STYLE PLAQUES
5TH CENTURY B.C.

The forest-steppe and the steppe burial sites are represented mainly by kurgans cemeteries. Apart from the these only 4 ground cemeteries dating to the 5th-3rd centuries B.C. are known. Kurgans were located in groups numbering from three to the hundreds. The burial grounds that formed such groups belonged to different times. The largest burial ground is Skorobor situated west of Bel'skoye. Up until very recently it contained more than 1,000 kurgan embankments. Some of them existed throughout the entire Scythian Period while some also included Bronze Age

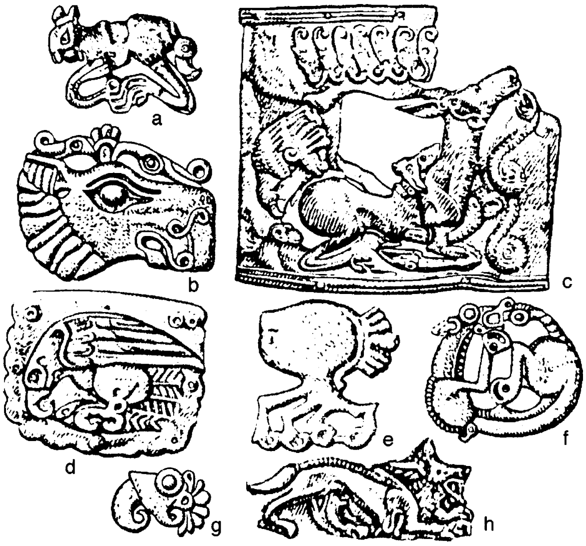
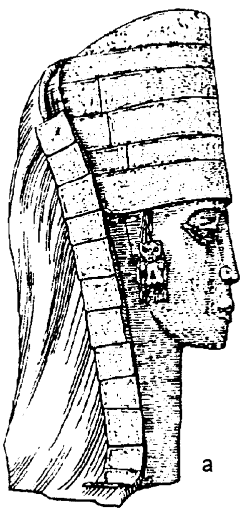


Fig. 47
Scythian animal style plaques
5th century B.C



Fig. 48
Scythian animal style plaques
4th-3rd centuries B.C



a

A. Headdress
Tolstaya Mogila
(reconstruction)



b

B. Gold plaque
Melitpol Kurgan
4th century B.C.

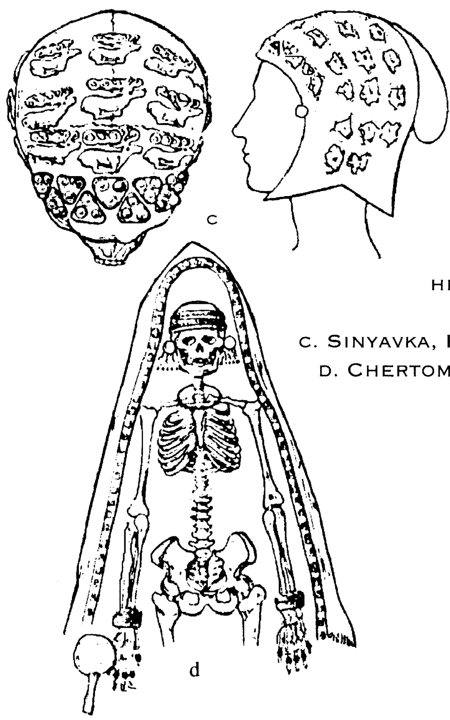


Fig. 49
Scythian
headdresses
for women
C. Sinyavka, Kurgan 100
D. Chertomlyk kurgan

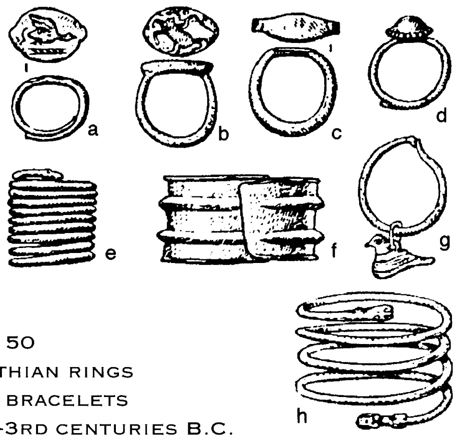


FIG. 50
SCYTHIAN RINGS
AND BRACELETS
4TH-3RD CENTURIES B.C.

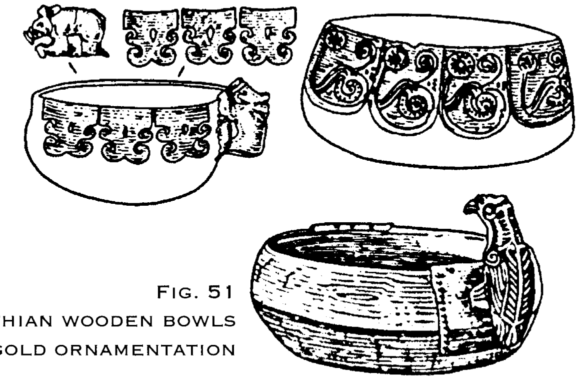


FIG. 51
SCYTHIAN WOODEN BOWLS
WITH GOLD ORNAMENTATION

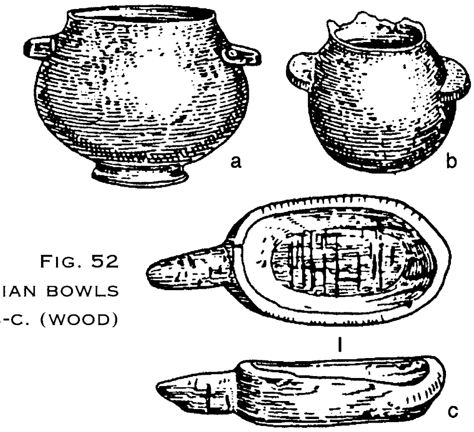


FIG. 52
SCYTHIAN BOWLS
A. (SILVER) B-C. (WOOD)

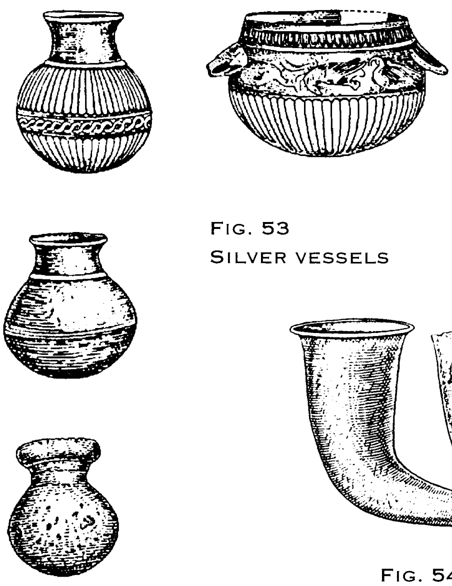


FIG. 53
SILVER VESSELS

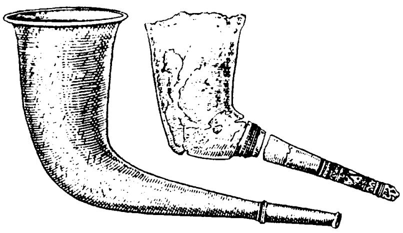


FIG. 54
SILVER RHYTONS

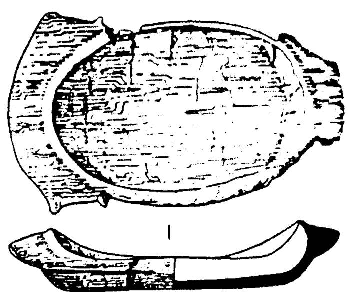


FIG. 55
WOODEN PLATTER

kurgans and still others belonged only to small groups within a narrower chronological period. Like in the steppe, the forest-steppe kurgans differ in their sizes. However, kurgan embankments of the same height as the royal Scythian kurgans of the lower Dnieper River area are known only in the basin of the Sula River where at the villages of Aksyutintsi and Volkovtsi there are several large kurgan cemeteries containing between 300 and 600 embankments. Among these were two immense kurgans measuring 20 m high and a few kurgans measuring 8 to 10 m high arround them.

A peculiar feature of the forest-steppe burial structures is the absence of catacomb graves

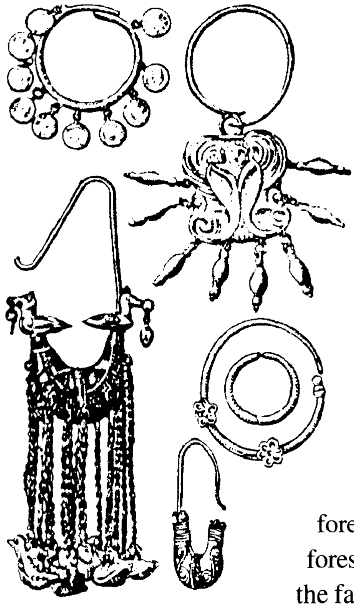


FIG. 56
SCYTHIAN JEWELRY
4TH-3RD CENTURIES B.C.

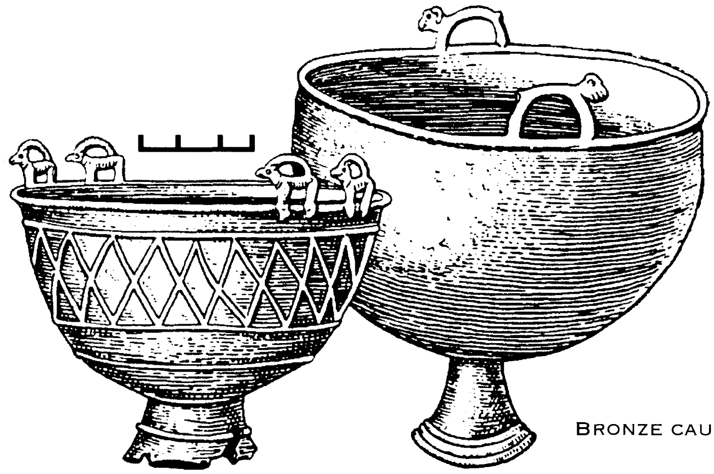


FIG. 57
BRONZE CAULDRONS

dating from the 7th-5th centuries B.C. It was only in the 4th century B.C. that a small number of catacombs appeared on the southern outskirts of the forest-steppe along the right bank middle Dnieper River area and in the terraced forest-steppe on the opposite left bank. This suggests that some nomadic hordes from the steppe penetrated into the forest-steppe. Before this time, in spite of the Scythization of the forest-steppe culture which began in the 7th century B.C. and despite the fact that the culture was undoubtedly connected with the presence of a nomadic Scythian population on the territory of the forest-steppe, it is extremely difficult to find Scythian graves. S.A. Skorii conducted the first study of burial sites on the right bank of the middle Dnieper River. To serve as a main indicator he selected burial structures with the dome-shaped design of graves widespread in the Iranian world and well known in the Early Scythian kurgans of the North Caucasus. Some such graves, classified as belonging to the Early Scythian Period, contained artifacts of Caucasian origin. Researchers believe that these findings provide evidence that the dead belonged to nomadic Scythians who had arrived at the right bank of the middle Dnieper River area from the territory of the North Caucasus (Skorii, 1987, p. 47). Using Skorii's work as a basis V.P. Grigoryev came to the conclusion that the few graves dating to the second half of the 7th century B.C. and found on the left bank of the terraced forest-steppe belonged to the Scythian population (Grigoryev, 1989). As a result of the coexistence and unavoidable interaction between the different ethnic groups that merged together, funeral ceremonies lost their ethnic originality and became"superethnic." The nomads who moved to the forest-steppe as well as tribes indigenous to the region lost their ethnic origi-

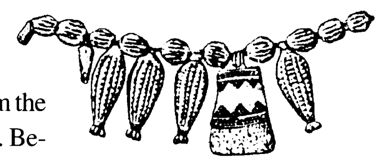


FIG. 58
SCYTHIAN
JEWELRY
5TH CENTURY
B.C.

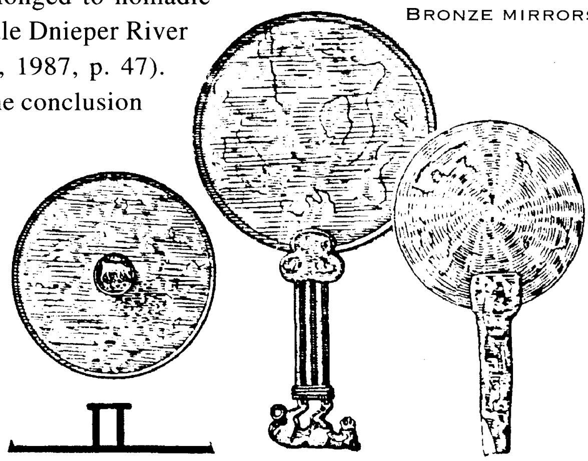


FIG. 59
BRONZE MIRRORS

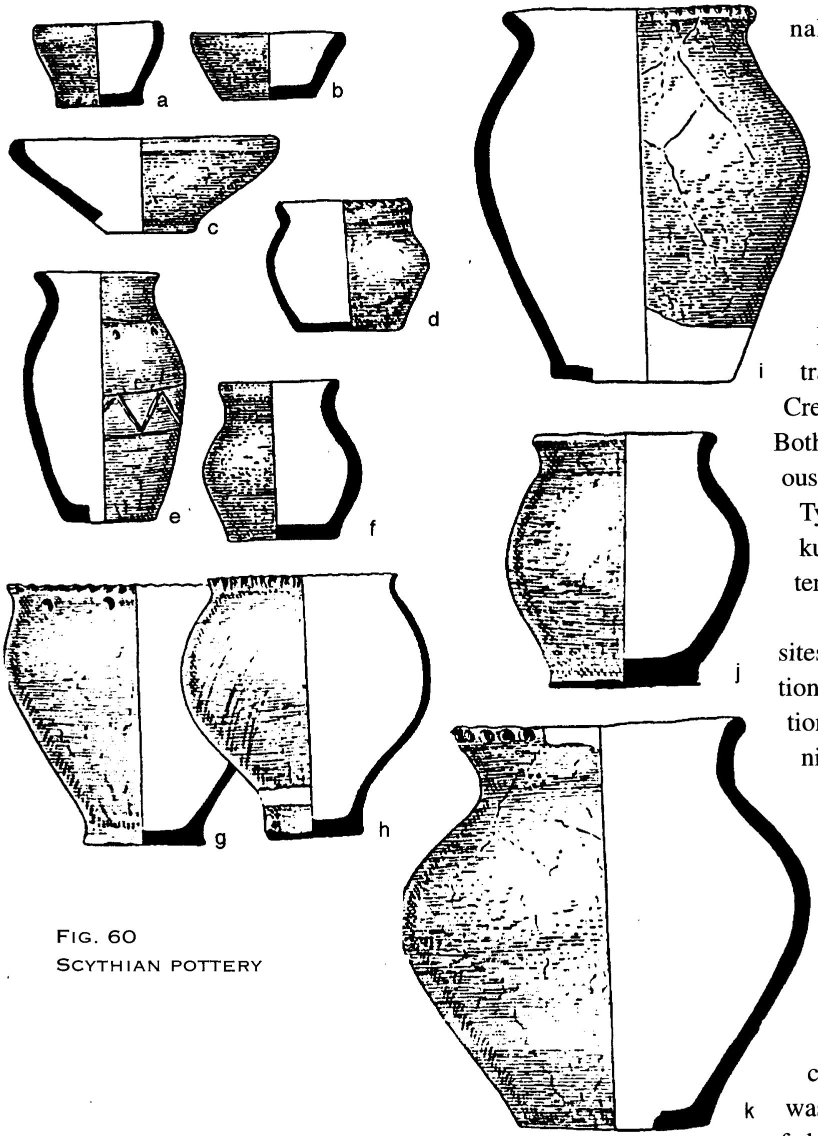


FIG. 60
SCYTHIAN POTTERY

nality. Because of this scientists' efforts in locating Scythian sites have been hampered.

Throughout the Scythian Period inhumation was practiced predominantly among the forest-steppe population of Eastern Europe. The dead were laid on their backs. It was only in Zapadnaya Podolia that bodies were placed contracted either on the right or the left side. Cremation was also a frequent occurrence. Both burial modes are traceable to the previous period of the Chernolesskaya Culture. Typically, orientation of the dead in the kurgans of the forest-steppe is not consistent but is quite regular in each local group. As in the steppe the archaeological sites of the forest-steppe are distinct reflections of the property and social differentiation which is evident from the very beginning of the Scythian period. It is in the middle Dnieper River basin that the most striking graves of local nobility belonging to the late 7th to early 5th centuries B.C. were discovered (Il'inskaya et al., 1980; Il'inskaya, 1968). The spacious graves with wooden vaults were arranged under high kurgans and contained many accompanying artifacts whose composition was similar to those found in the kurgans of the nomadic elite. Male graves usually contained complete sets of offensive armaments or means of protection. The differences in these graves were that noble warriors were accompanied in the forest-steppe by bridles while the other males were accompanied by horses only. The number of bridles in a grave varied. Some graves of the 6th century B.C. are known to contain from 16 to 20 bridle sets which included bridles, cheekpieces, buckles for cross straps, and decorations made in the animal style. The bridles of the 6th century B.C. are made of bronze and iron and the plaques as a rule were made of bronze. The cheekpieces were made of either bone or iron and bone. The widespread psalia of bone, whose ends are decorated in the Scythian animal style art (Figs. 44a, 45 a-b, d), are most characteristic of the Posulyskaya group of sites.

Dating to the Early Scythian Period some graves with dependent persons accompanying their masters have been registered in the right bank of the middle Dnieper River area (Kovpanenko,

et al., 1990, pp. 35, 48). In the Sula area rich military graves of men contained women, thought to be the wife or concubine of the men who had died, and who appeared to have been deliberately killed.

Rich military graves of the 4th century B.C. are few in the middle Dnieper River area. But some of them contain a wealth of artifacts only slightly inferior to that of the highest Scythian nobility of the steppe (Il'inskaya, 1968, pp. 79-80; Petrenko, 1967).

The most interesting forest-steppe sites of the late 5th-4th centuries B.C. have been studied in the middle Don River area (Liberov, 1965; Puzikova, 1966, 1969). The embankments are not high but located underneath the kurgans were huge (up to 60 m^2) grave pits with wooden constructions and sometimes dome-shaped ceilings. Although they had been robbed they have yielded many pieces of arms, bridle sets, gold plaques, bronze cauldrons, and other artifacts similar to those found in the kurgans of the nomadic Scythian nobility. Of particular interest among these findings are a gold plaque and a silver rhyton from the kurgan near Durovka village in the Belgorodskaya province. The plaque carries a depiction of a scene from a heroic Scythian epic (Puzikova, 1968, Fig. 29) similar to the one on the finial from the royal Scythian kurgan, Slonovskaya Bliznitza (Fig. 29d). The Greek made rhyton belonged to the class of Scythian ritual vessels. Coming from Kurgan 3 of the group Chastykh under Voronezh city is a famous silver goblet with a depiction of a scene from the legend of the origin of the Scythian people as reported by Herodotus (Rayevsky, 1970, pp. 90-100).

On the right bank of the middle Dnieper River a few unusual graves containing women stand out conspicuously because of portable stone altars, dishes, slabs, pieces of paint and chalk, seals, various amulets, pieces of armament and bridles placed as grave offerings. In some of these graves there were also some dependent persons buried without any accompanying artifacts (Kurgan 66 at Bobritea village, Kurgan 20 in Kholodnyi Yar; Petrenko, 1967, p. 53). Researchers believe that these graves belonged to priestesses who belonged to the highest social stratum of horsemen.

The graves of ordinary members of the population of the forest-steppe regions are usually small pits with wooden floors. There are occasional graves lined with wood. Some of these graves had small kurgan mounds raised over them while others were secondary burials placed in earlier embankments and still others had no embankment. Scythian influence was obvious in the graves of ordinary community members especially of those men whose graves yielded some pieces of offensive arms such as impressive sets of arrowheads, one or two spears and, less frequently, a sword or a dagger.

A characteristic trait of burial grounds in the forest-steppe zone is the invariable presence of local hand-modelled pottery, found even in the rich kurgans of the 5th and 4th centuries B.C. as well as vessels of clay and metal. Each of the local pottery groups is characterized by specific traits such as the shape used for funeral purposes (Figs. 61-62, 65-67).

Researchers differ in their opinions concerning the character of relations between the nomadic Scythians and the sedentary agrarians of the forest-steppe as well as in their opinions regarding the social development of each of the groups in Scythia. There is a widespread opinion, for example, that having returned from their Near Eastern campaigns and, especially, following the shift of the center of the Scythian Kingdom from the North Caucasus to the steppes of the North Black Sea, the Scythians established their rule over the sedentary population of the forest-steppe (Il'inskaya, 1966, pp. 60, 91; 1968, p. 80; 1975, pp. 169-171; Khazanov, 1975, p. 238). According to the researchers who support this viewpoint, the socioeconomic development of the nomadic Scythians was sufficiently high while that of the sedentary population of the forest-steppe was less developed. It is even believed by V.Yu. Murzin that the story Herodotus documented about the Scythians subduing the slaves when they returned from their campaigns in the Near East refers specifically to the

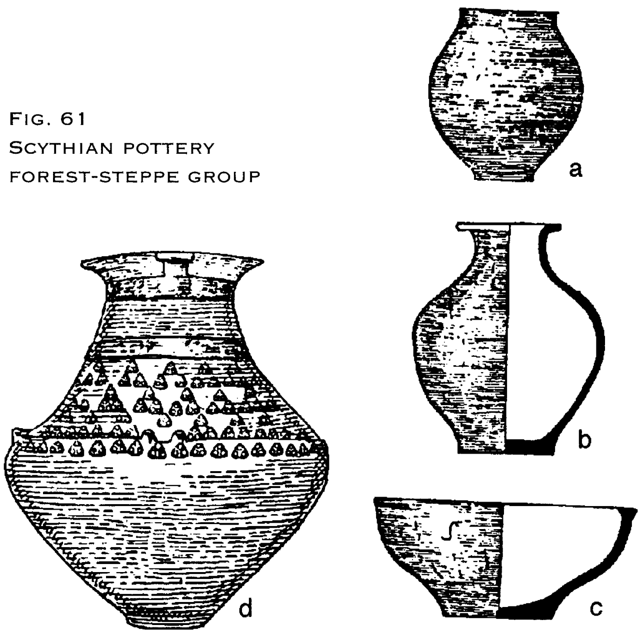


FIG. 61
SCYTHIAN POTTERY
FOREST-STEPPE GROUP

forest-steppe sedentary population (Murzin, 1990, pp. 62-64) in spite of the fact that Herodotus linked the story unequivocally to the population of the Crimea.

B.A. Shramko is against the hypothesis which suggests the sedentary tribes were subjugated by the nomadic Scythians and insists on a supposition which considers their economic and political independence. According to Shramko, it was in the 5th-4th centuries B.C. that the forest-steppe population reached a sufficiently high level of development probably superior to that of the nomads. He suggests that the forest-steppe sedentary population had reached the formative stage of an early class society (Shramko, 1983, p. 27).

S.A. Skorii believes that in the 7th and 6th centuries B.C., having invaded the forest-steppe territory of the middle Dnieper River in two waves, the Scythians formed a union of agrarians and cattle breeders headed by nomadic military nobility which received products of agriculture and opposed itself to the rest of the nomadic world (Skorii, 1990, p. 96).

While it is difficult to determine if the research to date is correct, the idea about predominance of the nomadic elite Scythians over the sedentary population and about the merging of the population with the local nobility seems quite probable. At the same time it is hard to believe that the nomads of the forest-steppe were isolated from the main mass of the nomadic population of the steppe.

Most likely the ruling elite of the forest-steppe functioned in close cooperation with the Scythian aristocracy of the steppe beginning at the end of the 6th century B.C. when the royal (tsarskiye) Scythians took a firm hold of the North Black Sea steppe zone from the Ister to Tanais rivers. In the 6th-5th centuries B.C. the dependence of sedentary forest-steppe tribes on the nomads had been only tributary. The size of tribute depended upon the measure of resistance offered to the nomads during their raids of the inhabitants of the forest-steppe regions. In exchange, the forest-steppe population was relieved of a constant military threat and was able to preserve its inner organization headed by its own chiefs who were responsible for the meeting of their engagements by the agrarians.

The 4th century B.C. was marked by a growing subordination of the forest-steppe population to the

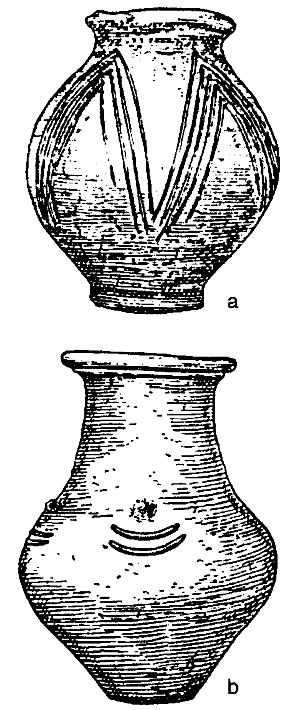


FIG. 62
SCYTHIAN POTTERY
A. KAMENKOE SETTLEMENT
B.IVANKHNOVTSY
END OF THE 7TH-5TH
CENTURIES B.C.

nomadic population as reflected by a decline in the lifestyle in the forest-steppe especially on the right bank of the middle Dnieper River. Many fortified settlements disintegrated and their total number decreased (Petrenko, 1967, p. 59; Moruzhenko, 1968, p. 61). The kurgans of the 4th century B.C. found in the forest-steppe are poorer than those found in the earlier period. Intensive Greek importing to the forest-steppe agrarians as noted in the 6th-5th centuries B.C. decreased markedly in the 4th century B.C. Another source of pressure on the agrarians was a new wave of nomads who arrived in the 4th century B.C. This is marked by the emergence of some typically nomadic cemeteries on both banks of the middle Dnieper River.

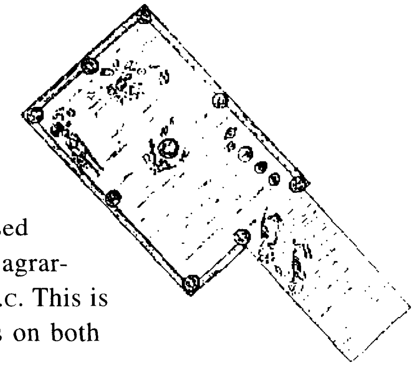


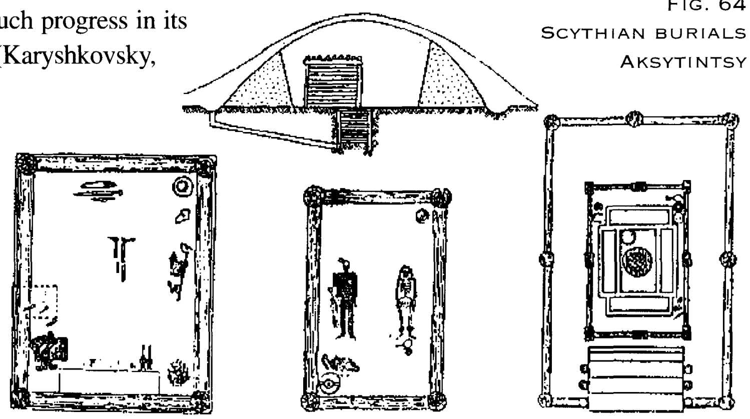
FIG. 63
KURGAN IN THE FOREST-STEPPES REGION
7TH-6TH CENTURIES B.C.

From the archaeological materials found researchers note that the decline of the population in forest-steppe was accompanied by a significant rise in the population which inhabited the steppes of Scythia. The growth of trade with the Greek cities in the Black Sea area in connection with the situation that developed in the Mediterranean market after the defeat of Athens in the Peloponnesian war was significant. In the late 5th-4th centuries B.C. the export of grain from the cities of the North Black Sea area to offset the food shortage in Athens grew significantly and the Greeks of the Pontus increased their purchases from the local population. If previously the agrarian population was not denied the right of independent trading, at this point the Scythian aristocracy seemed to take control of the trade in grain and other goods obtained from the agrarians and derived great profits.

As a result of the significant changes that took place in Scythian economy in the late 5th-4th centuries B.C. the social stratification intensified. B.N. Grakov (1954) suggests that the transition of the Scythian society to the stage of primitive statehood occurred at this time. Some researchers today agree with Grakov's opinion while others believe that the beginning of Scythian statehood should be traced back to the late 7th to 6th centuries B.C. (Shelov, 1972; Terenozhkin, 1966; Murzin, 1984). In support of the idea that Scythian statehood originated before the time of Herodotus, Khazanov (1965) demonstrates a few stages of its development and convincingly substantiates his conclusion that it reached its acme during the Atheas Period, or the period of the late 5th-4th centuries B.C. An important contribution to the study of state formation among the Scythians has been made recently by P.O. Karyshkovsky (1987) who has begun identifying the coins of the Scythian King, Scilurus, which were minted in Nikonia within the first quarter of the 5th century B.C. Karshkovsky believes that Scythia had made much progress in its social development during the time of Scilurus (Karyshkovsky, 1987).

In the 3rd century B.C. the historical destinies of the steppe and forest-steppe populations of the North Black Sea area drifted sharply apart. What researchers suggest happened is that under pressure from the Celts and Thracians of the west and especially from the Sarmatians of the east, the Scythian might staggered and the forest-steppe tribes fell. As before, they continued to follow their origi-

FIG. 64
SCYTHIAN BURIALS
AKSYTINTSY



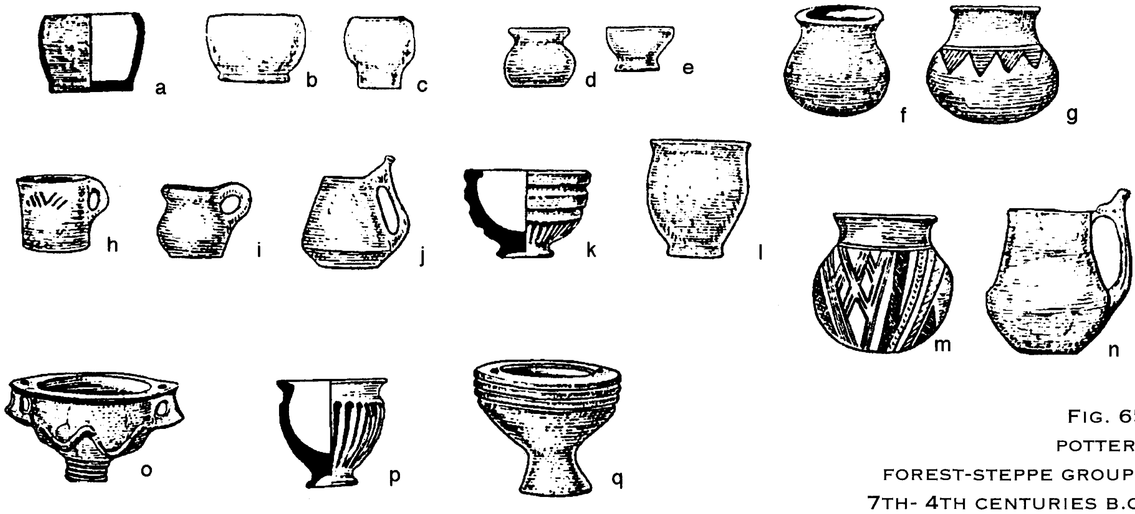


FIG. 65
POTTERY
FOREST-STEPPE GROUPS
7TH- 4TH CENTURIES B.C.

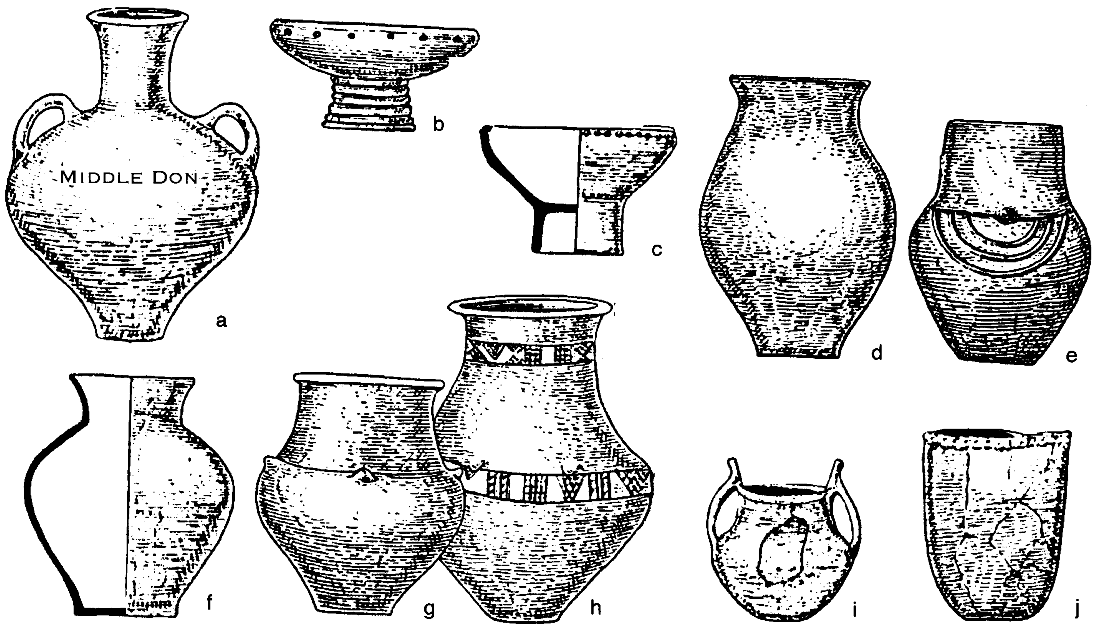


FIG. 66
POTTERY
FOREST-STEPPE GROUP
7TH-4TH CENTURIES B.C.

nal way of life quite differently from that of the Scythians and their culture soon lost all of its Scythian traits.

Not later than in the late 3rd to early 2nd centuries B.C. following the Sarmatian invasions the conditions for the nomad economy in the steppe became limited. The steppe territories roamed by the nomads were lost to them as a result of the transition of nomadism to a sedentary way of life. Fortified as well as some unfortified settlements were built where the old nomadic settlements and camps

in the basin of the lower Dnieper River had existed. The end of the nomadic hegemony in Scythian society is reflected by the end of the construction of great royal kurgans in the first half of the 3rd century B.C. and in the 1st century B.C. The kurgan tradition yielded completely to that of kurganless cemeteries.

According to Strabo, beginning in the late 3rd century B.C. the center of the Late Scythian Kingdom or Scythia Minor was located in the Crimea with the lower Dnieper River area serving as a periphery for the kingdom. The territorial disconnection and the specific geographical and historical conditions of the two areas of Scythia Minor made the lower Dnieper River Scythians culturally different from those who lived in the Crimea. More distinctly visible in their culture are the traditions of the previous period as well as the elements that were borrowed by the Scythians from the Sarmatians, Thracians, and later the Celts. The lower Dnieper River population did not have as much direct contact with the Greek cities as in the Crimea. They maintained close relations only with Olbia which was periodically subordinated to the rule of the Late Scythians and mediated in the trade between the settlements of the lower Dnieper River area and between the centers in the Mediterranean region and Asia Minor.

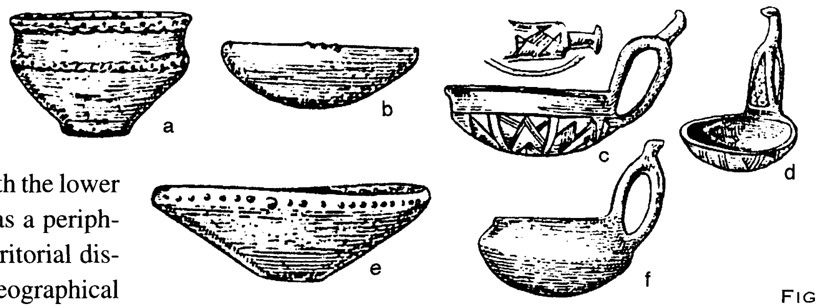


FIG. 67
SCYTHIAN POTTERY
FOREST-STEPPE GROUP
7TH-6TH CENTURIES B.C.

The settlements found on the left bank of the lower Dnieper River became non-existent in the late lst to early 2nd centuries A.D. possibly under the pressure of a new Sarmatian wave. The settlements situated on the right bank closer to the mouth of the Dnieper River flourished until the 3rd-4th centuries A.D. and then perished like the Scythian settlements in southwestern Crimea. This marked the end of the ethnic and political existence of Scythia but the name of Scythians lived much longer. Sarmatians, Goths, Alans, and even Pechenegs were often given that name by the Greeks. Even in a Russian chronicle Old Russ is called Velikaya Skuf (Great Scythia). Although the Scythians did not have any direct descendants in Eastern Europe, an echo of the Scythian culture survived up until the Middle Ages and was particularly palpable in the art of many peoples genetically unrelated to the Scythians. Researchers have found some prototypes of the Scythian animal style art in a number of motifs characteristic of the art of Old Russ peoples of the Kama River area, medieval Bulgaria, and others. To be sure, medieval masters used only the form while filling their works with different contents.

Notes

Chapter 2

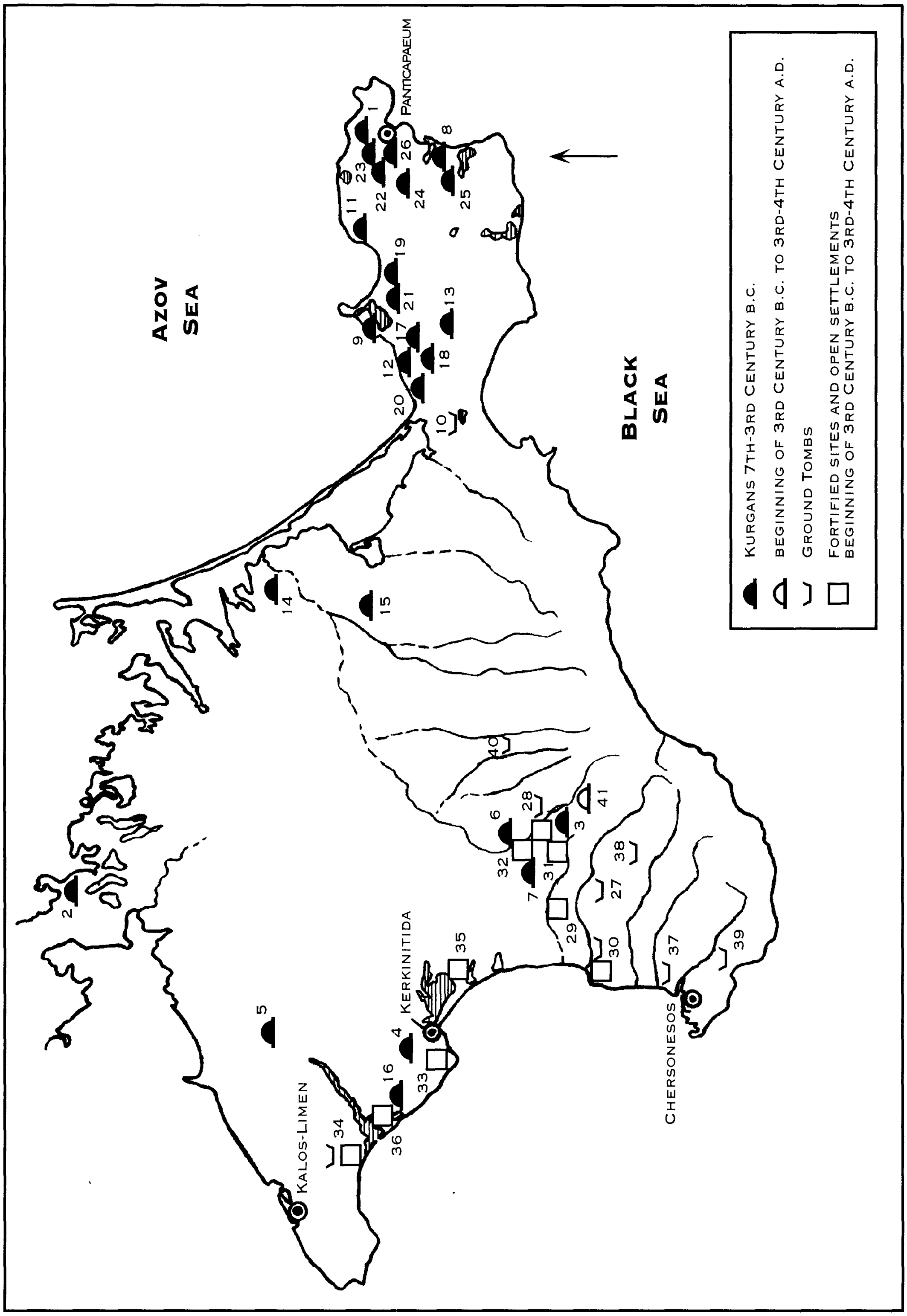
Scythians of Southeastern Europe

1. Black earth. (Ed. note)
2. Parts of modern Bulgaria, Romania, and Greece. (Ed. note)
3. Only a few Greek elements were added after adaptation.

Monuments

1. Temir-gora
2. Filatovka
3. Beloglinka
4. Koloski
5. Kashtanovka (Kara-Merkit)
6. Zolotoi Kurgan
7. Grushevoye, Talayevskii Kurgan
8. Nymphey Cemetery
9. Semenovka
10. Frontovoye
11. Zolotoye
12. Ribnoye
13. Kirovo
14. Chkalovo
15. Chernozemnoye
16. Privetnoye
17. Lenino
18. Ilyichevo
19. Astanino
20. Brannoye Pole (field)
21. Zeleny Yar
22. Kul' Oba
23. Ashika Kurgan
24. Kekuvatskogo Kurgan
25. Trekhbratni
26. Patiniotti
27. Alma-Kermen (Zavetnoye)
28. Kermenchik (Scythian Neapolis)
29. Bulganakskoye
30. Ust-Alminskoye
31. Zalesye
32. Kermen-Kyr (Krasnoye)
33. Chaika
34. Belyaus
35. Kara-Tobe
36. Yuzno-Donuzlavskoye
37. Belbek I
38. Skalistoye
39. Chernorechenskii
40. Krasnogorskii (Neizats)
41. Tavel

Key to Map 4. Scythian Monuments in the Crimea Beginning of the 7th Century B.C. to the 3rd-4th Century A.D.



Olkhovsky

Map 4. Scythian Monuments in the Crimea Beginning of the 7th Century B.C. to the 3rd-4th Century A.D.

CHAPTER 3

SCYTHIAN CULTURE IN THE CRIMEA

VALERY S. OLKHOVSKY

The Crimean peninsula (the Crimea) is situated in the southern part of Europe. It is a diamond-shaped territory measuring about 26,000 km^2. It is washed by the Black Sea from the south and west, by the Strait of Kerch from the east, and by the Azov Sea and shallow Sivash Bay from the north and northeast. The Crimean peninsula is connected to the mainland by the narrow 8 km wide Perekop Isthmus. From the point of view of its natural geographic conditions the Crimea is divided into steppes, foothills, and mountains. In the southern part of the peninsula from the areas around the city of Sevastopol to the cities of Simferopol and Feodosia, the mountains form three parallel ranges. The steppes occupy about 70% of the peninsula's territory. In the west they include the Tarkhankut Hills and in the east the hilly Kerch Peninsula. Between these two points are the central Crimean plain and the north Crimean lowland.

The first studies of Scythian monuments in the Crimea were undertaken between 1821 to 1830 when the rich Patiniotti and Kul' Oba kurgan burials were discovered accidentally. The existence of the large Scythian site at the old town of Kermenchik has been known since 1827. Up until the beginning of the 20th century members of the Tavrian Archival Research Commission and members of the Imperial Archaeological commission (N. Veselovsky, A. Kulakovsky, A. Kashpar, A. Steven, N. Romanchenko) excavated Scythian kurgans in this region. Active studies of the Crimean Scythian monuments began in 1945 with the Tavro-Scythian expedition headed by P. Shultz. Numerous kurgans and ancient towns were the foci of excavations (A. Karasev, N. Pogrebova, V. Babenchikov, E. Veimarn, O. Dashevskaya, O. Dombrovsky, T. Troitskaya, and others). During the 1960s and 1970s much was accomplished by members of the North Crimean and Kerchenskaya Expeditions of the Institute of Archaeology of the Academy of Sciences, Ukraine SSR (A. Schepinsky, A. Leskov, E. Yakovenko, V. Korpusova and others). These archaeologists surveyed a number of settlements and excavated dozens of Scythian burials. In the years that followed several expeditions from the Crimea, Moscow, and Leningrad Archaeological Institutions studied various Scythian kurgan and ground cemeteries (V. Kolotukhin, E. Symonovich, S. Bessonova, E. Bunyatyan, E. Yakovenko, and V. Olkhovsky), settlements (T. Vysotskaya, I. Yatsenko, O. Dashevskaya, A. Scheglov, I. Khrapunov, and others), and monumental art (P. Shultz, N. Bogdanova, E. Popova, V. Olkhovsky, and others). Other scientists made attempts at reconstructing the political and socioeconomic history of Crimean Scythia (E. Yakovenko, D. Rayevsky, O. Dashevskaya, M. Skrzhinskaya, E. Solomonik, and others).

During the Early Iron Age the outline of the Crimean peninsula (according to the ancient authors "Taurika" and "Taurika Chersonesus") was somewhat different than it is today. In connection with the maximum Phanagorian Regression of the Pontus (Black Sea), by the 6th century B.C. the levels of the Black and Azov seas were 4 to 6 m lower than today. The Perekop Isthmus was 70 to 90 km wide and the Sivash Bay did not exist (Olkhovsky, 1990 pp. 29-30). The dry and warm climate of the early 1st millennium B.C. contributed to the fact that living conditions on the steppes were not conducive to an easy lifestyle. This probably explains the scantiness of evidence for a Scythian presence in the 7th-6th centuries B.C. in the Crimea (Map 3). One of the earliest Scythian graves is dated to the second half of the 7th century B.C. It is located on the Temir-Gora Mountain near the Kerch Strait (E.Y. Yakovenko, 1972). A large 4 x 3 m grave pit filled with stones had been placed under an 8 m high kurgan. In the pit next to the human skeleton the remains of a quiver, bone bow tip in the shape of an eagle head (Fig. 1), and a painted Greek oinochoe were found. In contrast, on the Perekop Isthmus near the village of Filatovka another Scythian grave of the 7th century B.C. containing a Rhodian-Ionian oinochoe was excavated (Korpusova, 1980). The wide distribution of archaic Scythian graves is not accidental. According to information provided by Herodotus (IV, 11) and archaeological data Scythians were not native to the Crimea. They could have reached the peninsula in two ways. One was from the east by wading through the Cimmerian Bosporus (Kerch Strait) or in winter by crossing it on ice. The second was from the north coming across the pra-Perekop Isthmus. This hypothesis is supported by the fact that the most ancient Scythian graves have been discovered near the Bosporus and on the Perekop Isthmus.

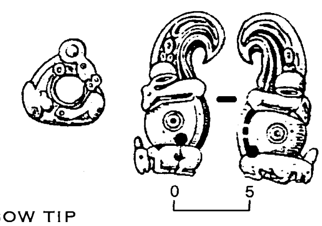


FIG. 1
BONE BOW TIP
QUIVER ORNAMENT

Upon arriving in the Crimea the Scythians encountered the sedentary Tauri who were native to this region. In general, the Tauri inhabited the foothills and mountains of the peninsula. The cultural level of the Tauri was inferior to that of the Scythians. According to Herodotus (IV, 1), upon their arrival in the Black Sea region, probably in the Crimea, the Scythians may have conquered a portion of the local population and took them as slaves. Upon their return from the Near East the Scythians encountered an unexpected obstacle when they were opposed by an army of their own descendants. These people had been born of Scythian women who had not gone to the Near East and fathered by the slaves who had been blinded. The decisive battle of the Scythians and the descendants of the blinded slaves (Herodotus, IV, 3) took place in the vicinity of a ditch which ran continuously between the Taurian (Crimean) mountains and the Meotida (Azov Sea). The only place that corresponds completely to the one described by Herodotus is the Akmonaian Isthmus which defines the Kerch Peninsula on the west (Olkhovsky, 1981). The superior military organization of the Scythians who had returned from the Near East enabled them to win the battle over their descendants.

The incident described by Herodotus is indisputable evidence in favor of a mixed Scytho-Taurian population living in the Crimea not later than the 7th-6th centuries B.C. In archaeological literature the Tauri are associated with the Kizil-Kobin Culture of the Crimea. Excavations in recent decades have shown that both settlement and cemetery sites of the Kizil-Kobin type were widespread over the Crimea including the steppe areas. The foothill-steppe Kizil-Kobin sites differ markedly from those of mountainous Taurika (Kris, 1981). These differences are a result of contact the Crimean indigenous population had with the invading Scythians who came from the peninsula (Olkhovsky, 1982). The century old coexistence of the Scythians with the Kizil-Kobinians (Tauri) is the most characteristic cultural trait of the Crimean Scythians.

The early period of Scythian history from the 7th to the 6th centuries B.C. is characterized by the absence of any settlements in the Crimea. The Scythians were probably not numerous and led a nomadic way of life. It was only during annual seasonal migrations that their numbers in the Crimea increased. A few individual Scythian graves of the 6th century B.C. have been found in the steppes and foothills. Some are identical with the Scythian graves of the same date which are located in the Black Sea steppes region. Many graves display distinct Kizil-Kobin traits. The burials were in grave pits. The dead were buried in boxes constructed of massive stone slabs sometimes surrounded by a fence. Accompanying artifacts frequently include hand-modelled pottery of the Kizil-Kobin type (Fig. 2). Typical Scythian arms were also included in the offerings. Orientation of the dead was generally to the west with some deviation in about 75% of the burials. The dead were buried usually supine although at times they were contracted or semi-contracted. In two cases, one in Beloglinka and the other in the village of Koloski, a semi-contracted skeleton of a woman accompanied by pottery of the Kizil-Kobin type lay next to a male skeleton (Fig. 3). These burials probably represent mixed Scythian and Kizil-Kobinian marriages. The marriages would have been a normal occurance after the Scythians returned from the Near East (Olkhovsky, 1982). This conclusion is in agreement with both the archaeological data (contracted position of the dead and the hand-modelled pottery with geometric ornamentation typical of the Kizil-Kobinians) and with information supplied by Herodotus.

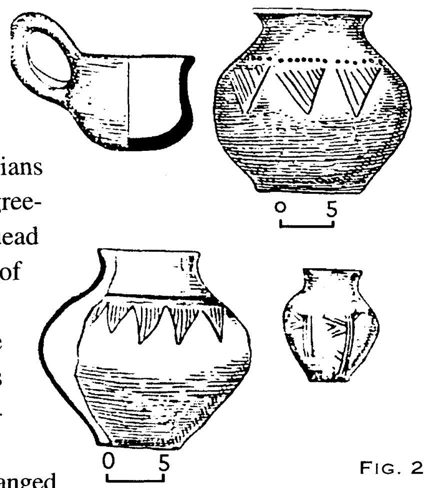


FIG. 2
TYPICAL
KIZIL-KOBIN
POTTERY

In the 7th through 6th centuries B.C. after they had subdued the local Kizil-Kobinian population in the foothills and steppes, the Scythians controlled a large part of the Crimean territory. The ethnically mixed Scytho-Kizil-Kobinian (Scytho-Tauri) population formed at that time.

In the 6th to early 5th centuries B.C. the European climate changed drastically and became colder and more humid. The rivers in the steppe, including those in the Crimea, became deeper. The vegetation grew more lush. The level of the Black and Azov seas began to rise steadily. The longer periods of time during which vegetation grew favored the development of nomadic cattle breeding in the steppes. During the 5th century B.C. the Scythian population of the Crimea increased considerably. In addition to the continued active and diverse ties with the Kizil-Kobinians, Scythian contacts with the classical Greek culture became increasingly important.

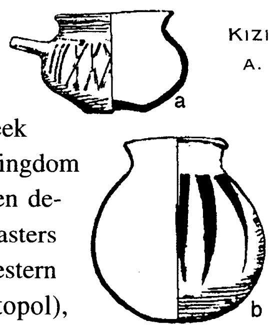


FIG. 3
KIZIL-KOBIN POTTERY
A. KOLOSKI KURGAN
B. BELOGLINKA KURGAN

The first Greek colony in Crimea was Panticapaeum known today as the city of Kerch. Panticapaeum was founded in the late 7th century B.C. In the 6th century B.C. new Greek colonies were established mostly on the Kerch Peninsula. These included Nymphaeum, Mirmekii, Tiritaka, and Feodosia. In 480 B.C. the Greek settlements in the eastern Crimea were united within the Bosporus Kingdom under the Arachaeanactids Dynasty. These settlements could have been destroyed during military conflict with the Scythians who had become masters of the North Black Sea region after their victory over Darius. The western Crimea colonies including Chersonesus (the modern city of Sevastopol), Cercinitis (the modern city Eupatoria), and Kalos-Limen (the modern settlement Chernomorskoye) were subject to the same danger.

These perilous circumstances committed the Greek colonists to friendly commercial, economic, and political relationships with the Scythians. The same protocol was undoubtedly also displayed by the Scythians, especially by their elite. As the Scythian population increased the Greco-Scythian contacts became permanent. Judging by the artifacts found in the graves the Crimean Scythians obtained vessels, various decorations made of precious metals, bronze artifacts, and black burnished pottery from the Greeks. They also traded for wines and fabrics. In return the Scythians could offer the Greeks slaves, cattle, and animal products.

An analysis of more than 50 graves of the 5th century B.C. makes it possible to define characteristic Scythian traits which include burials in pits and stone boxes, skeletons predominantly placed in a western orientation, and an almost obligatory set of arms which accompanied the dead. As a standard, graves were in kurgans whose embankments heights at the time of excavation measured between 0.2 to 6.0 m.

Scythian graves of the 5th century B.C. are dispersed over most of the steppe Crimea territory. They are found more frequently in the foothills and on the Kerch Peninsula. The kurgans belonged to a representation of both commoners and nobility. Approximately at the same time Scythian graves of the Crimea began to show some local variation. Thus, in the central and northern Crimea the Scythians were buried in pits and their accompanying artifacts are identical with synchronous graves found in the Dnieper River steppes. In western Crimea both pits and stone boxes were used to bury the dead. In 1885 an interesting stone-box burial was discovered in the vicinity of Kashtanovka village (formerly Kara-Merkit) north of Eupatoria city. Four golden plaques, covers for a wooden vessel with depictions of deer and eagle heads were excavated. In addition, fragments of a copper vessel, a bronze scoop or wine strainer, a bronze plaque shaped like an elk head, 280 bronze arrowheads, an iron sword, and a plated armor were discovered.

Worthy of special attention is a group of graves discovered in the foothills and lower mountains. The well known Zolotoi (Golden) Kurgan, located some 6 km from Simferopol city, was studied in 1890. The grave pit contained a warrior who had been laid on a special ground platform with his head orientated to the west (Fig. 4). He wore a plain open gold torque around his neck. His belt was decorated with bronze plaques with depictions of an eagle and a griffin head. In addition to the oval-shaped shield on which the warrior had been laid, his set of arms included a short iron sword in a scabbard faced with gold, and a wooden quiver with 180 bronze arrowheads. The edge of the quiver was decorated with a three-dimensional figure of a panther made of bronze and covered with gold foil.

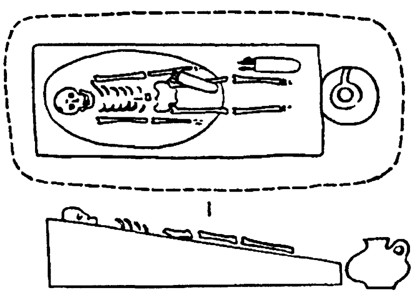
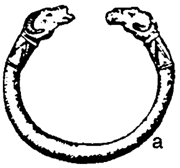


FIG. 4
WARRIOR I BURIAL
ZOLOTOI KURGAN

In the grave of Kurgan 1/1895 at Grushevoye village a warrior had been laid out on his armor. A ball-shaped goblet with a typical Kizil-Kobinian ornament, a form that imitated Scythian wooden and metallic ritual vessels, had been placed at the head of the warrior. The vessel seems to have been made for the Scythian nomads in one of the Crimean foothill settlements. This would indicate that cultural and ethnic integration between the Scythians and the Kizil-Kobinians continued during this time.

A map of the burial grounds of the 5th century B.C. has revealed the direction of the Scythian penetration into the Crimea from the Perekop Isthmus southward into the foothills, southwest

toward Tarkhankut, and eastward to the Kerch Peninsula. By the late 5th century B.C. a greater part of the Kerch Peninsula was to some extent controlled by the Bosporus Kingdom. It was in this region that Greco-Scythian contacts were the longest and most diverse. Traces of interaction between the two cultures becomes apparent through an analysis of the graves of the Scythian nobility. Between 1860 and 1879 several rich graves with stone slab boxes covered with adobe were studied near the ruins of the Greek town Nymphaeum (Silantyeva, 1959). Human remains were found in a wooden sarcophagus of Greek make. Mortuary offerings included a great quantity of metal and ceramic vessels, decorations (Fig. 5), defensive and offensive arms of Greek and Scythian type (Fig. 6), and small gold plaques which had been sewn onto fabric. Horses with their harness equipment were buried in shallow pits near the tombs. Traits alien to the Greek burial ritual, such as an abundance of artifacts including arms, harnesses, and horse burials identify the burials as Scythian. At the same time, the use of sarcophagi, adobe, and the eastern orientation of the dead provide a reflection of the Greek influence upon Scythian burial traditions. The location of the Scythian graves next to a Greek settlement and the great number of Greek artifacts within the graves (Fig. 5) indicate that the Greeks and the Scythians were mutually interested in contacts. They maintained for the most part a peaceful relationship.


a

b

c

Fig. 5
a. Bracelet
burial near Nymphaeum
b. Il'ichevo kurgan
c. Trekhbratnii kurgan

Other rich Scythian graves with no or almost no Greek influences have been found in the Bosporus. One catacomb grave in a cemetery near the village of Semenovka (Bessonova, Skorii, 1986) contained a wooden bowl with metallic cover plates, arms, and horse harnesses. In the 5th century B.C. and later catacombs in the Crimea are very rare. Ordinary Scythians were buried in stone boxes and in grave pits. Most of the burial places are identical with the Scythian cemeteries in the Black Sea steppes. However, a few differ as burials were made without kurgan mounds and other typical Scythian features. A characteristic feature of cemeteries without kurgans, such as those found at Frontovoye, Zolotoi, and Ribnoye is that a given burial place and structure were reused over a period of a few years or decades. When burying another body, the bones of the earlier bodies buried there were shifted to the side of a grave or they were taken partially out of the pit. Ground cemeteries, those without kurgans, combine the traits of both Scythian (western orientation, weapons, and other accompanying artifacts) (Fig. 7) and local Kizil-Kobinian burial traditions (low circular fences around the boxes, contracted posture of the dead, powdering with a red pigment, and the inclusion of polished pottery (Fig. 8). Such cemeteries have been left by a sedentary and mostly mixed population. The process of shifting to a sedentary lifestyle first involved the poorest social groups while the main mass of Scythians living in the 5th century B.C. maintained a nomadic way of life and left the Crimea through the Perekop Isthmus. It proved advantageous for the Scythians that some of the population was sedentary because the nomads could obtain agricultural products and crafted objects from the sedentary peoples.

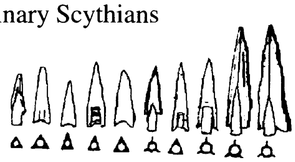


Fig. 6
Scythian arrowheads

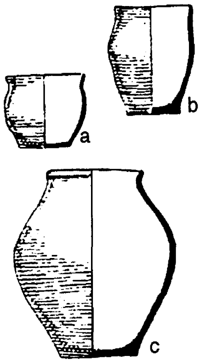


FIG. 7
SCYTHIAN POTTERY
A-C. KIROVO KURGAN
B. LENINO KURGAN

The Greeks colonized the fertile areas of western and eastern Crimea. They were interested in maintaining friendly relations with the Scythians because in case of war the city fortifications could not withstand the strong and numerous enemy attacks. With the help of the Scythians the Greeks could secure their safety and also expand their holding in the Bosporus by conquering the Sindo-Meot tribes of the Taman Peninsula and of the Kuban River area. The stable Scythian commercial ties enabled the Greeks to obtain necessary raw materials and animal products as well as slaves in exchange for luxuries (Fig. 9). The Scythians traded their wares for high quality ceramic and metal vessels, wines, and textiles. The Greeks sent rich gifts to Scythian "kings" and chieftains. This was a type of regular tribute paid to the Scythians in return for their neutrality or allied support. Written sources of the 5th century B.C. make no mention of Greco-Scythian conflicts.

The 4th century B.C. is characterized by a considerable increase of not less than six times the size of the Scythian Crimean population. Scythian monuments during this time are represented mostly by burial places. In the North Crimea and the Sivash area, burials are not numerous. However, it is here that the typical Scythian catacomb type burials (Fig. 10) are concentrated (Filatovka, Chkalovo, Chernozemnoye, and others). In the western Crimea, Scythian burials form a few groups, containing 4 to 20 kurgans each. Stones were widely used to build the burial structures and kurgan embankments. Apart from stone boxes of varying sizes, stone vaults with special entrances began to be used. Sometimes the walls, floors, and ceilings were formed from worked stone slabs. The practice of placing stone anthropomorphic sculptures on the crest of kurgans became widespread. Like those in the Black Sea area the Crimean sculptures were carved in the form of male warriors with a quiver, bow, and a sword, sometimes a spear, and a rhyton (Fig. 11). In two cases a Greek type panoplia was depicted (Fig.12) (Chernomorskoye, Privetnoye). It is possible that high quality sculptures were made by Greeks on the order of Scythian nobility. To mount the sculptures on the base, stone plates with holes were used sometimes. About 90% of the known sculptures and their bases are concentrated in the western part of the Crimea.

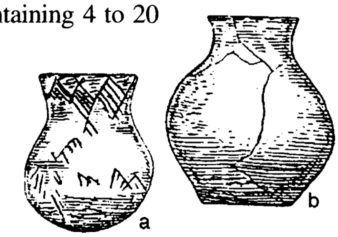


FIG. 8
KIZIL-KOBIN
POLISHED POTTERY

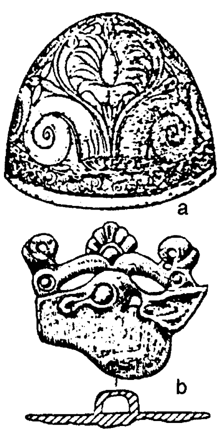


FIG. 9
A. HEADDRESS
AK-BURUN KURGAN
B. QUIVER OR SWORD ORNAMENT
KOLOSKI KURGANS

During the 4th century B.C. in the foothills of the Crimea the dead were buried predominantly in stone boxes. Grave pits and stone vaults were used less frequently and catacombs and wooden tombs were very rare. One well preserved burial place, Kurgan 1, "Talayevskii," near Grushevoye village was studied in 1891. Its spacious stone box (Fig. 13) contained a male skeleton in plated iron armor and a fighting belt. A small axe, 5 spears and darts, some arrowheads, a Greek bronze helmet, a gold torque, a large rhyton carved from antler, and many other artifacts lay nearby (Mantsevich, 1957).

The Scythian population increased especially on the Kerch Peninsula. It is here in the Crimea that more than half of the Scythian burials dating to the 4th century B.C. have been studied. These were found in cemeteries containing from as few as 5 to 10 burials to as many as 50 to 60 burials in

the larger necropoleis. Ground cemeteries without kurgans, such as at Zolotoi, Rybnoye, and Frontovoye (the latter contained a few catacombs) continued to function. They belonged to a mixed Scytho-Kizil-Kobinian population. The kurgan groups near the villages of Lenino (Fig. 14), Il'chevo (Fig. 15), Astanino (Fig. 16), Brannoye Pole (Field) (Fig. 17), Zelenii Yar (Fig. 18), Kirovo, and Semenovka belonged to more ethnically pure Scythians (Yakovenko, 1974). The socially homogeneous dead were placed in stone boxes, or vaults, or pits with stone ceilings. Although no Scythian settlements of the time have been studied yet, large numbers of asynchronous cemeteries without kurgans provide evidence that a significant part of the Kerch Peninsula population was sedentary or semi-sedentary.

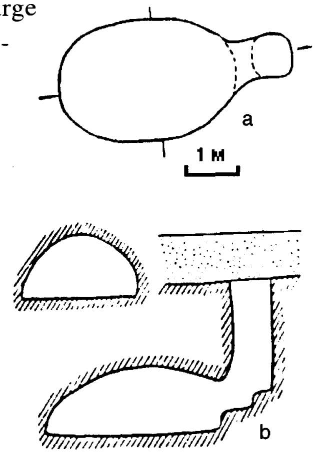


FIG. 10
SCYTHIAN CATACOMB BURIALS
A-B. BEREZHNOE KURGAN

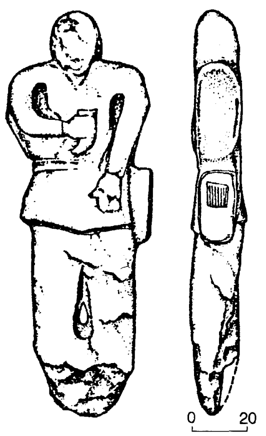


FIG. 11
RHYTON
KOLOSKI

Almost all the 4th century B.C. graves of Scythian noblemen were located not more than 20 km from Panticapaeum, the capital of the Bosporus Kingdom. Others burials were in the Panticapaeum kurgan necropolis on the Yuz' Oba ridge. These include burials in the Ashika, Ak-Burun, Kekuvatskogo, Patiniotti, Trekhbratnii (Fig. 19), and Kul' Oba kurgans (Olkhovsky, Khrapunov, 1990, pp. 58-61). The Kul' Oba (Hill of Ashes) Kurgan was a particularly interesting burial studied in 1830. It had a spacious vault of cut stone measuring 4.6 x 4.2 m with a stepped arch 5.3 m high (Fig. 20). The vault, undoubtedly built by a Greek architect, contained the remains of a noble Scythian (perhaps a king) lying on a luxurious wooden couch. His head was adorned with a felt cap covered with golden plaques. He wore a torque, rings, and bracelets all of precious gold. Lying next to him were his ritual articles and weapons which included an iron (a short sword), a gorytus (quiver), a whetstone set in a gold handle, and a gold phiale. To the left of the couch a woman had been buried in a cypress sarcophagus. Her clothes were decorated with golden plaques (Fig. 21). She wore a diadem with pendants, earrings, a torque, a necklace, and bracelets (Fig. 22) made of gold. Lying next to her was a bronze mirror. Placed between lower legs was a ball-shaped electron (gold and silver alloy) goblet with depictions from possibly a Scythian epic tale (Fig. 23). At the southern wall of the vault an armor-bearer had been buried. He was accompanied by a horse, two spears, bronze greaves, and a helmet. Metal vessels, including bronze cauldrons, two silver basins with a set of ritual vessels, and amphorae had been placed along the wall. The hiding place under the vault's floor has been robbed

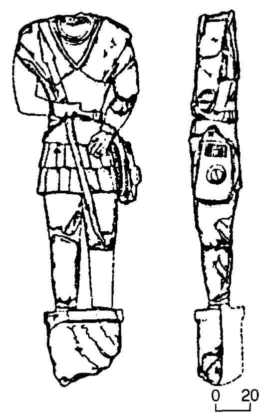


FIG. 12
GREEK-TYPE PANOPLIA
PRIVETNOYE

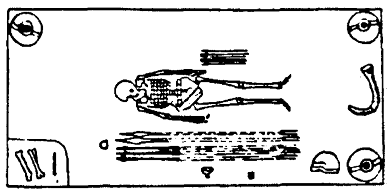


FIG. 13
BURIAL
TALAYEVSKII KURGAN

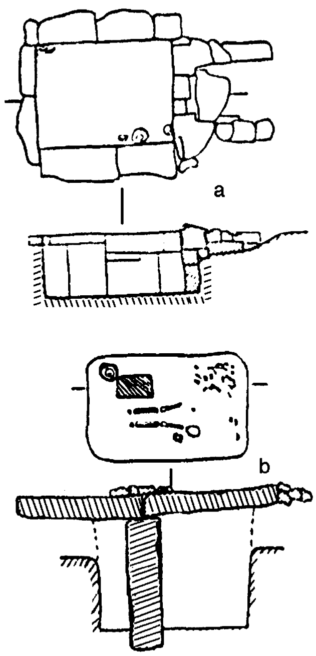


FIG. 14
PLAN OF OF BURIALS
A. LENINO KURGAN
B. ASTANINO KURGAN

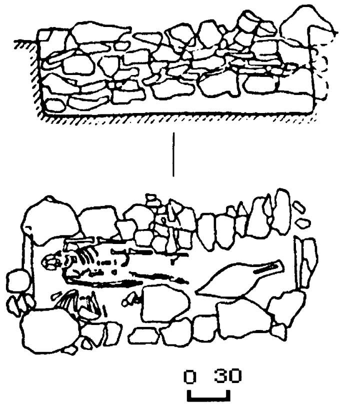


FIG. 15
BURIAL
IL'ICHENVO
KURGAN

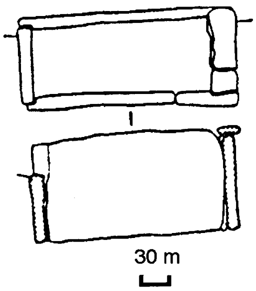


FIG. 16
PLAN OF BURIAL
ASTANINO KURGAN

completely except for a large golden plaque in the shape of a crouching deer.

A noble woman and her girl servant had been buried in the Starshii Trekhbratnii Kurgan vault (Fig. 19 d-e). This burial contained an interesting combination of Greek (Fig. 19d) and Scythian features including a horse skeleton at the entrance and bronze Panticapaeum coins ("Haron obolos"). Thus, in the 4th century B.C. elements of the Greek burial traditions had been adapted by the Scythians as result of wide contacts and mixed marriages between Scythian and Greek nobility. At the same time, due to cultural integration, differences between burial traditions of Scythians and Kizil-Kobinians had almost disappeared by the 4th century B.C. Paleoanthropologists have agreed with these conclusions (Zhilyaeva-Kruts, 1970; Pokas, Nazarova, Dyachenko, 1988). Polished pottery with geometrical ornaments fell into disuse almost completely at that time.

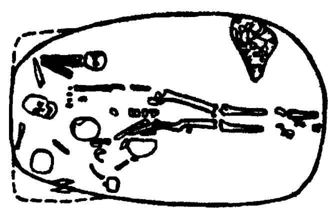


FIG. 17
BURIAL
ZELENII YAR
KURGAN

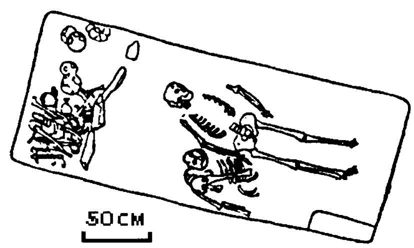


FIG. 18
BURIAL
ZELENII YAR KURGAN

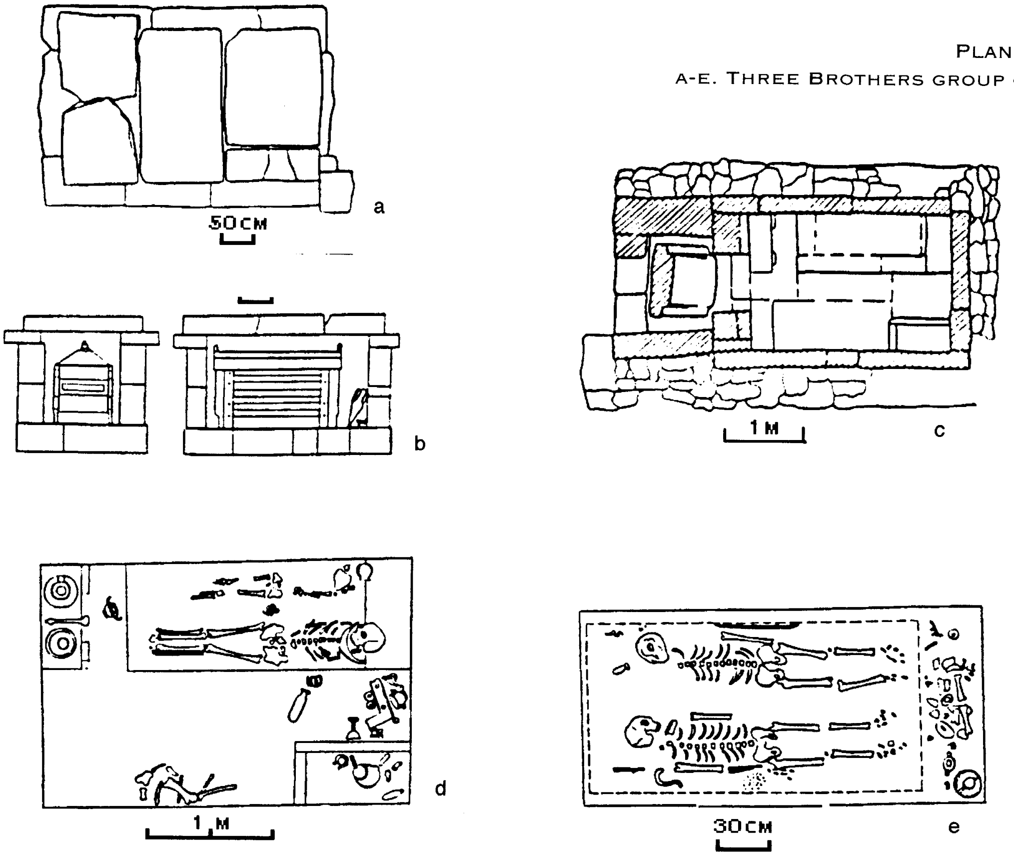


FIG. 19
PLAN OF BURIALS
A-E. THREE BROTHERS GROUP OF KURGANS

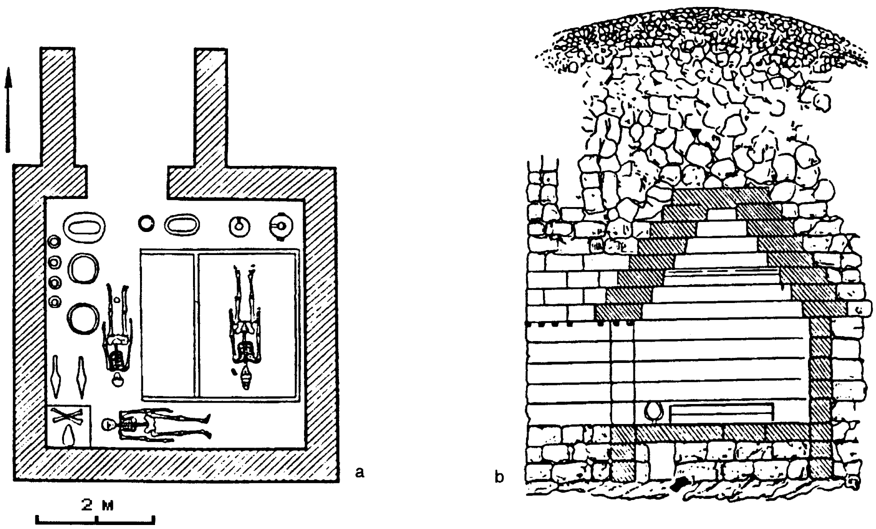
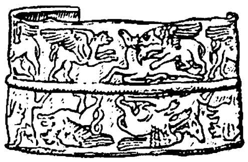


FIG. 20
BURIALS
KUL' OBA
KURGAN


FIG. 21
GOLD PLAQUE
KUL' OBA KURGAN

According to written sources during this period the Scythians lived not only in the poorly used steppes of the Crimea but also at the very center of the Bosporus territory, that is, in the eastern Crimea (pseudo Skilak). The Scythians were free and politically independent of the Bosporus. It seems that some of the grain the Spartokids sent to Attica (not less than one million poods of grain were exported annually from Panticapaeum alone) was acquired through exchanges with sedentary Scythian populations with the consent of the Scythian "kings." Moreover, Leucon I (389/88 - 349/48 B.C.) captured Feodosia with the help of a Scythian horse cavalry which he trusted more than his own troops. Scythians including 20,000 infantrymen and 10,000 horsemen constituted nearly 90% of the strength of the Satyrus' troops which Satyrus used during his fight for the Bosporus throne (311 B.C.). Paerisades, the son of the perished Satyrus, sought to escape from his uncle Eumeles and to find protection at the headquarters of Scythian King, Agarus. Stable military, political, and economic ties between the Bosporus Kingdom and the Scythians were the norm in the Crimea and the Kuban River region throughout the 4th century B.C. The Bosporus Kingdom may have tried to free itself from the Scythian "guardianship" but was not successful.


FIG. 22
BRACELET
KUL' OBA KURGAN

The period from the 3rd century B.C. to the 3rd or 4th centuries A.D. marked the decline of the Scythian force in the North Black Sea region. Under pressure from Sarmatian tribes the surviving Scythians retreated to the Crimea and the lower Dnieper River area. According to Strabo, the ethnopolitical entity that was formed at this time was called Scythia Minor.

The 4th-lst centuries B.C. were marked by the beginning of the Nymphean transgression, a continuing rise of the water level in the Pontus and Meotida seas which reached a maximum of 1 m above the modern sea level in the 1st-4th centuries A.D. The Crimea became a peninsula connected to the mainland by only a shallow system of lagoons and swamps (Olkhovsky, 1990, p. 30). Ancient authors comment on the existence in the 1st century B.C. of Foul Lake (Buk or Biki), the modern Sivash Bay, in western Meotida. The width of the unflooded part of the Perekop Isthmus diminished to 40 stadia (Strabo) or even to 5000 steps (Pliny). This made it possible to raise a defensive system of ditches (tafr) and banks on the Perekop Isthmus.


FIG. 23
GOLD BEAKER
KUL' OBA KURGAN

The history of Crimean Scythia Minor is closely connected not only with the Sarmatians and Greek colonies but also with the state of Pontus and Rome. A late Scythian state was formed in the Crimea and ruled by kings and the aristocracy. The territory and boundaries of the state were not stable and depended on the external political situation. The population of Crimean Scythia consisted of free and socially heterogeneous Scythians, some larger groups of ethnically mixed populations, and a number of Greeks and Sarmatians.

In the 3rd-2nd centuries B.C. the Scythians conducted active offensive actions against Chersonesus in the western Crimea and captured many fortified farmsteads and some cities (Cercinitis, Kalos-Limen) and most importantly, some vast arable lands on which grain and grapes were produced. In the 2nd century B.C. Scythian King Scilurus had Olbia subjugate to him and minted his coins there. According to Polyaenus, in order to protect themselves against the Scythians the Greeks sometimes entered into an alliance with the Sarmatians. At the very close of the 2nd

century B.C. Scythians again attacked Chersonesus and forced the Greeks to apply for help to Mithridates VI Eupator, King of the Pontus State. It took Diophantus, a general of Mithridates VI, not less than three years to defeat the Scythians with the help of the Chersonesus militia and Pontus troops. Although Diophantus liberated Cercinitis and held the Scythian fortresses, Neapolis and Chabum, captive for some time, the Scythian Kingdom in the Crimea survived. This was probably due to the military union of King Palacuscus, son of Scilurus, with the Rhoxolani, one of the Sarmatian tribes. After the abdication of Paerisades V, King of Bosporus in favor of Mithridates Eupator and the suppression of Saumacus' uprising by Diophantus (107 B.C.), the Bosporus Kingdom was incorporated into the Pontic Kingdom. Memnon reports that Mithridates VI deprived the Scythian kings of their patrimonies and probably made them his vassal allies. In order to consolidate the military and political union with Scythia Minor, Mithridates, according to Appian, "gave his daughters in marriage to the Scythian rulers." Plutarch wrote that Mithridates had several Scythian wives. Scythians were considered to be "friends" of Mithridates and were included in the composition of his troops (Olkhovsky, Khrapunov, 1990, pp. 80-82, 102-104).

In 63 B.C., as a result of unsuccessful wars against Rome, and as a result of his own son Pharnaces' betrayal, Mithridates VI perished and the Pontus power disintegrated. Scythians remained in control of a great part of the Crimea steppes, including its northwestern coast and the foothills. According to the written sources, beginning in the 1st century B.C. the ethnonym Tauri-Scythians (Scytho-Tauri) appeared to indicate the final assimilation of the foothill Kizil-Kobinians by the Scythians and the formation of a mixed nationality (Olkhovsky, 1981). From the 2nd century B.C. the Satarchae Sarmatians tribes appeared in the Crimea occupying Taphrae, the Sivash area, and the Perekop Isthmus. Beginning around the 1st century B.C. they were also called Taphrae. The Sataracho-Taphrae evidently maintained a generally friendly relationship with the Scythians.

After the death of Mithridates VI, Scythian ambassadors offered their friendship to the Roman Emperor Augustus in a vain hope to normalize their relations with Bosporus with his help. Beginning from the late 1st century B.C. and up to the 3rd century A.D. the Scythians and Tauri-Scythians fought with intermittent success against Chersonesus which was supported by Rome, and against Bosporus. However, during the time of peace the Greco-Scythian commercial contacts were re-established. The invasions of the Goths (middle of the 3rd century A.D.) and later, the invasion of the Huns (4th century A.D.) led to the final downfall of the Scythian culture.

Monuments of the late Scythian culture are represented in the Crimea by approximately 100 settlements, ground and kurgan cemeteries, and economic complexes (Shultz, Zubar, 1986). An overwhelming majority of these are concentrated in the foothills, on the outer and inner ridges of the Crimean mountains, and in the coastal zone of the western Crimea. The numerous fortified and unfortified settlements and their locations in fertile, well watered regions testify to the settled lifestyle of the main mass of the Late Scythian population. A majority of the settlements are small and do not exceed 1 hectare in area. The largest of the Scythian settlements in the Crimea is Kermenchik and is located in Simferopol city. It covers 20 hectares (Fig. 24). Bulganakskoye, located near the village of Pozharskoye, and Ust-Alminskoye, on the Alma River each cover 6 hectares. Zalesye, near Simferopol, covers 5 hectares while Kermen-Kyr known as Krasnoye located at the village of Mirnoye covers 4 hectares (Dashevskaya, 1989, p. 128; Vysotskaya, 1989). Defensive works of the settlements include stone and adobe walls, earthen banks, and ditches. Such settlements were usually placed on almost inaccessible triangular outcroppings with precipices on two sides. The third side of the outcropping was protected by a wall and occasionally with a moat and rampart. In

some cases the moats and ramparts were faced with stone. In some larger settlements the second line of defensive works formed an acropolis. The defensive walls were made of unworked stones held in place with clay mortar and filled with soil and fine stones. Varying between 2 and 9 m thick some walls supported towers (Fig. 25). The tops of the walls were frequently constructed of adobe. Occasionally, a low wall was built also along one of the precipices. Towns built on high and flat plateaus had 1 or 2 walls surrounding the settlements along the entire perimeter.

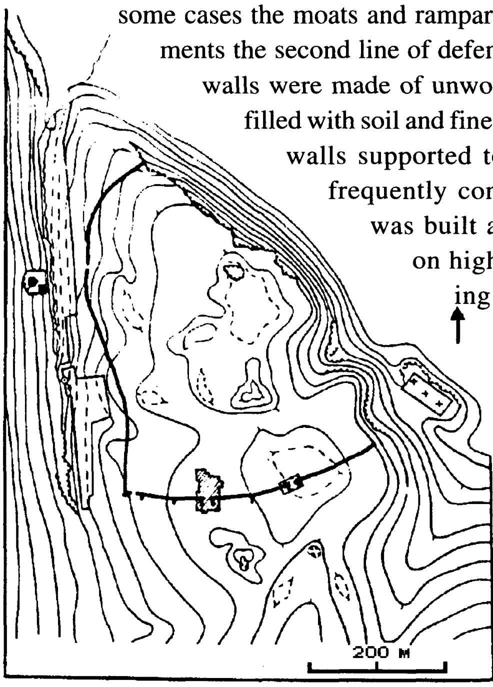


Fig. 24
Scythian Neapolis
Kermenchik

Scythian towns of the northwestern Crimea are quite original architectural ensembles. The gently sloping sea coast did not offer a convenient location for natural defensive features. Scythians were obliged to populate the fortified Greek farmsteads and settlements, such as Chaika, Belyaus, and others that they had captured. The defensive works were further reinforced by the raising of Greek ashlar walls. Sometimes a deep moat was constructed.

The most ancient Scythian town of Crimea, Kermenchik, is found on the Petrovskiye Rocks in Simferopol (Figs. 24-25). It was settled in the late 4th to early 3rd centuries B.C. Many researchers identify it with Neapolis, the fortress and place of residence of Scythian kings as mentioned by Strabo. Apart from the natural obstacles such as precipices, the town was protected from the south and probably from the west by an occasionally rebuilt wall of large stones and adobe. The walls measured up to 12.5 m wide and up to 9 m high. A wooden gate was protected by towers. Opposite the gate the settlement's central square was surrounded by public buildings and was decorated with statues and monumental reliefs (Vysotskaya, 1979).



Fig. 25
Scythian stone defensive works
Neapolis

The late Scythian dwellings are diverse in design and size. Their houses were usually built of roughly processed stones held together with clay mortar and less frequently of adobe on a stone socle. Floors were made of clay or in houses with cellars of wood or stone. The houses were one-story buildings with 1 to 3 rooms measuring on the average 2 to 3 x 2 to 4 m (Fig. 26). The houses built by

Scythians in captured Greek settlements were often two-story buildings with stone stairs and clay tiled roofs. The tile is mostly of Sinope and Chersonesus origin. The houses were usually attached to the inner sides of the Greek fortification. The closely set houses formed blocks divided by narrow, 0.8 to 1.5 m wide streets. The stone paved streets ran at a level which was usually higher than that of the house floors. Dugouts were not widespread (Belyaus, Kermenchik). A type of rare construction found at Kermenchik, Kara-Tobe, Belyaus, Chaika, and Yuzhno-Donuzlavskoye included round subterranean dwellings measuring 2.2 to 3.6 m in diameter. The cone-shaped ceilings rested on a pole in the center of the dwellings, imitating the yurt, the usual nomad dwelling. Stone or earthen couches were built along the perimeter of the pseudo yurt.

Almost all the houses were for small families with medium income. Houses belonging to a rich family are rare. One house that was studied dated to the 2nd century B.C. and belonged to a wealthier family. It was located in the southern part of the ancient town of Kermenchik. The three-room building measured 20.4 x 6.5 m. It differed from the more common houses in that the masonry included some well cut stone blocks, some elements of wooden structure, painted plaster in one of the rooms, and a tiled roof.

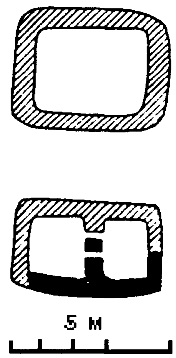


FIG. 26
SCYTHIAN NEAPOLIS
LIVING QUARTER

Hearths of clay and stone were used to heat the dwellings. Auxiliary service buildings have yielded some millstones and stone grain mortars, clay bread braziers, horse harnesses, weights for simple looms, as well as tools to work bone, wood, and metal.

Public buildings of stone and adobe have been studied only in Kermenchik, the Scythian Neapolis, and in the near vicinity (Vysotskaya, 1979, pp. 58-71). All of these were influenced to varying degrees by Greek architecture and construction techniques. For example, the buildings have columns with capitals, tiled roofs, painted plaster, statues, and relief sculptures.

Directly in front of the gate of Kermenchik stood a building with porticoes measuring 29 m decorated with marble statues. Nearby cult buildings (A and B) of the megaron type have been excavated. The walls of one building (19 x 9 m) were plastered (Fig. 27) and painted by Bosporus artists. A hearth had been built inside the building. The second building measured 15 x 7.6 m. As in the first building, fragments of antlers were excavated. In the immediate vicinity of the town wall two buildings of the same type and size (Z and E) also contained cultic hearths, sacrificial pits, and ash pits adjacent to the buildings (Fig. 28).

Late Scythian burial grounds are quite numerous and include necropoleis associated with settlements, ground cemeteries and groups of kurgans located in separate places. Burial locations are found in the settlements throughout foothills in southwestern and northwestern Crimea. In the eastern Crimea burials are not numerous. Burial structures of the late Scythian Period are diverse (Figs. 29, 33-39). They include ground pits, stone boxes, and vaults (catacombs, graves with niches, and subterranean vaults), and vaults cut in the rock. In some instances burials were in amphorae, molded vessels, and in unused grain pits (Bogdanova, 1982). Inhumation is predominant although cremation with the remains placed in amphoras or molded vessels have been recorded at the Belbek I, Skalistoye III, and Chernorechenskii cemeteries in the southwestern Crimea. The orientation of the dead is not consistent. From the lst century B.C. the predominant latitudinal orientation coexisted with the meridional. Bodies were supine and in some cases legs were crossed and arms were bent at the elbows with hands at the waist or pelvis. The tradition of repeated use of the same grave became widespread. A single burial structure may have contained from two to a few



Fig. 27
Painted wall decorations
Cultic building
Scythian Neapolis

dozen bodies. The repeated use of one burial structure, possibly by members of the same family, continued sometimes for several decades. Each region of the Crimea is characterized by particular types of burial structures and burial traditions.

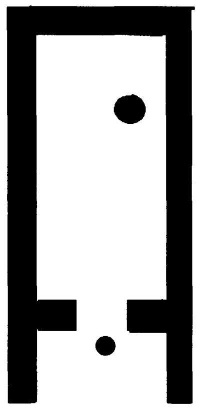


Fig. 28
Cultic hall
Scythian Neapolis

The necropoleis located in the foothills and in the central Crimea including that of Kermenchik, the Scythian Neapolis, have been studied most thoroughly. The mausoleum of stone and adobe, measuring 8.65 x 8.1 m, attached to the outer side of the town's defensive wall is unique (Shultz, 1953; Pogrebova, 1961). From the end of the 2nd century B.C. and up to the turn of the lst-2nd century A.D. 72 bodies were buried in the mausoleum (Fig. 29). The earliest and richest burial contained a male buried in a stone box accompanied by a set of arms (Fig. 30) and more than 800 fine artifacts of gold. Four horses and a man servant were buried next to him. It is believed that the tomb belonged to King Scilurus or his son Palacuscus. A female, probably a queen, was buried in a gold encrusted cypress sarcophagus of Greek make. Remains of 70 adults and children were found in 34 wooden coffins with 1 to 5 bodies in each coffin. They were accompanied with numerous pieces of ornamentation (Fig. 31), ceramic vessels, armament, mirrors, and spindlewhorls. Funeral food included beef, pork, mutton, game bird, hare, and fish. All the individuals were probably members of a royal family.

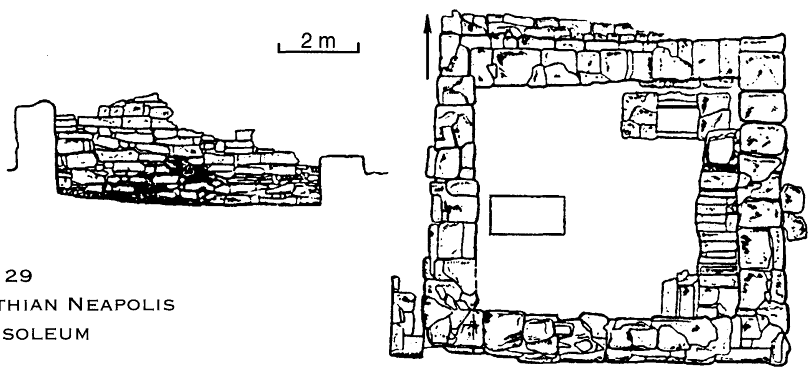
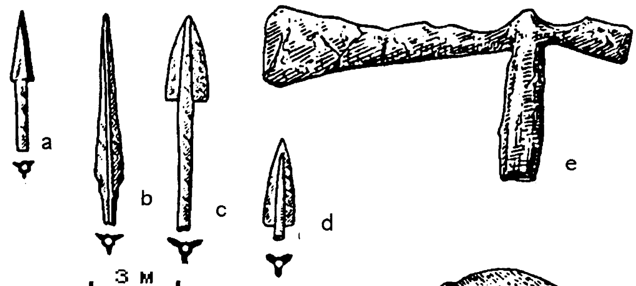


Fig. 29
Scythian Neapolis
Mausoleum

Not far from the ancient town site more than 200 burial sites which had been cut in rock were excavated. In addition, burials in ground vaults (catacomb) (Fig. 32), simple pits, and grave pits with niches (*podboi*) (Fig. 33) were studied (Symonovich, 1983; Babenchikov, 1957). Generally the vaults are T-shaped

in a horizontal plane. The entrance pits were filled with stones (Fig. 34). Occasional vaults were decorated with polychromic paintings with anthromorphic and zoomorphic depictions (Fig. 35). The rock vaults of the Krasnogorskii burial ground (formerly Neizats) have a similar design. Four surface stone tombs near Simferopol, Tavel, and the estates of Pastak and Cherkes each contained from 100 to 173 bodies.



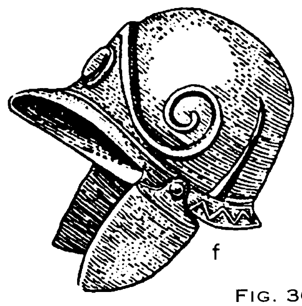


Fig. 30
Weapons and Armament
Scythian Neapolis

In the southwestern Crimea (Vysotskaya, 1972) more than 600 late Scythian burial sites have been studied. In the cemetery Skalistoye III, graves with niches are predominant although ground pits are also found. In the Ust-Alminskii cemetery ground vaults, niches (Fig. 36), and grave pits, including those with ledges have been recorded. Horse burials were also found. Some 209 burials in pits, stone boxes, and niches have been recorded in the Alma-Kermen cemeteries near Zavetnoye village (Fig. 37). About 90 niches, ground vaults, and cremation burials in the Chernorechenskii Cemetery were discovered.

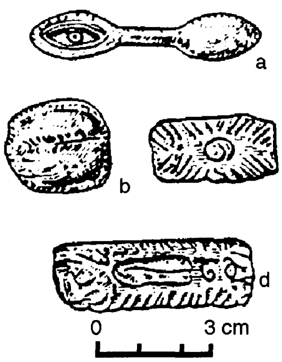


Fig. 31
Cultic Articles
Mausoleum
Scythian Neapolis

Necropoleis of the northwestern Crimea have been well studied, particularly those in the ancient towns of Belyaus (Fig. 38) and Chaika. Ground vaults and niches are predominant in the former where 170 graves were excavated. At Chaika, in addition to vaults cut in subsoil rock and burials in stone boxes, some instances of children

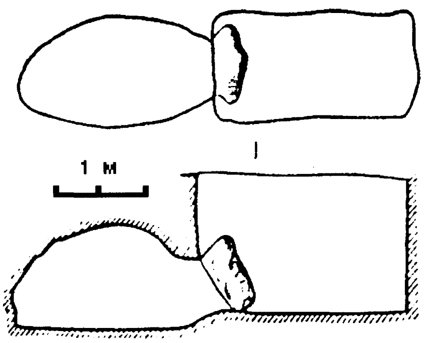


Fig. 32
Catacomb Burial
Neapol'skii Cemetery

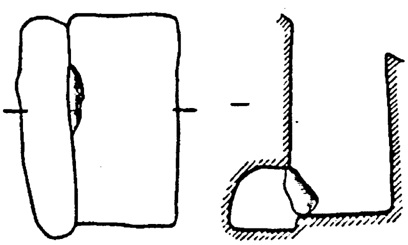


Fig. 33
Podboi Burial
Neapol'skii Cemetery

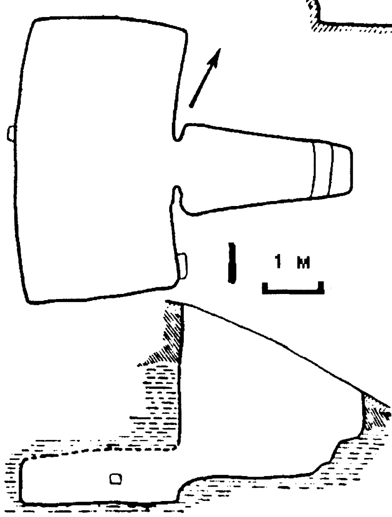


Fig. 34
Catacomb Burial
Neapol'skii Cemetery

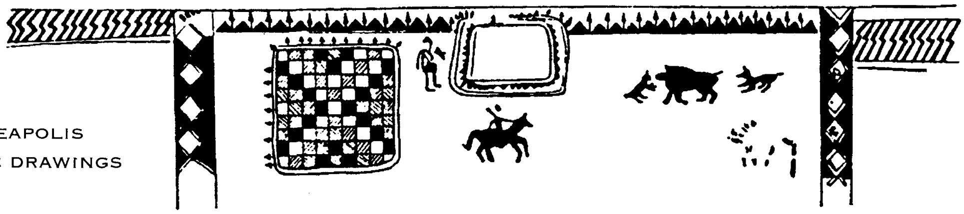


FIG. 35
SCYTHIAN NEAPOLIS
ZOOMORPHIC DRAWINGS

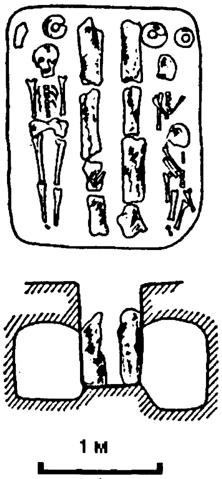


FIG. 36
BURIAL
UST-ALMINSKII CEMETERY

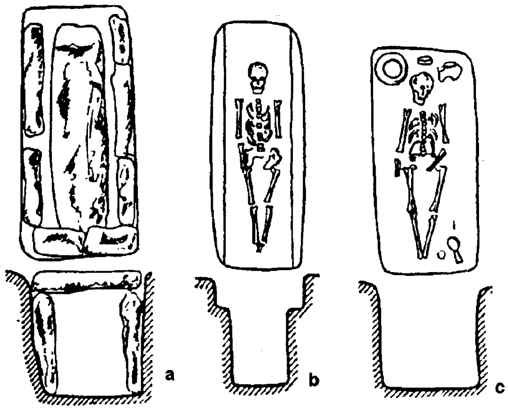


FIG. 37
BURIALS
ZAVETNINSKII CEMETERY
ZAVETNOYE

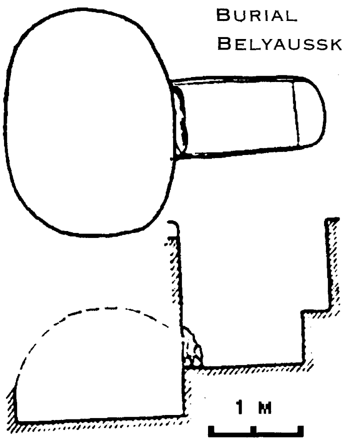


FIG. 38
BURIAL
BELYAUSSKII CEMETERY

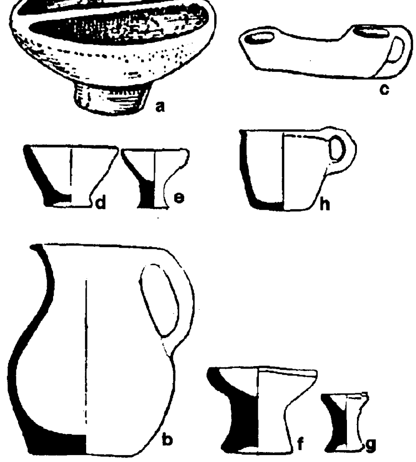


FIG. 39
POTTERY
A, D. BELYAUSSKII CEMETERY
E. KALOS-LIMEN CEMETERY
F. NEAPOL'SKII CEMETERY
G. YUZHNO-DONUZLAVSKOYE CEMETERY
H. KRASNOE CEMETERY

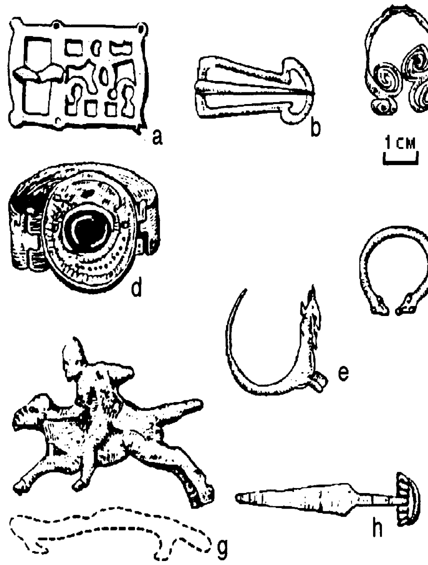


FIG. 41
SCYTHIAN
JEWELRY

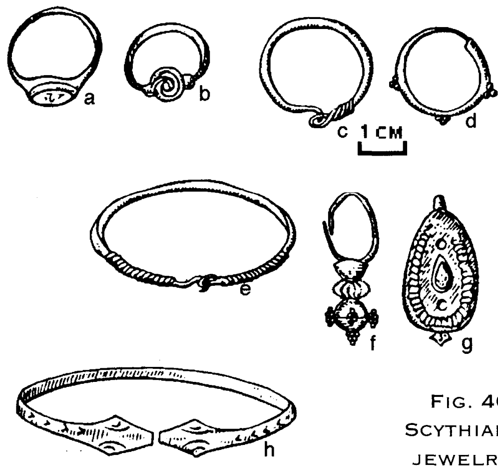


FIG. 40
SCYTHIAN
JEWELRY

having been buried in amphoras were recorded. Occasionally the Scythians used stone vaults that had been built by the Greeks (Yatzenko, 1978).

Accompanying artifacts in the late Scythian cemeteries are not rich but are diverse. They include sacrificial food, usually placed in a vessel, wheel-made Greek pottery and hand-made local vessels (Fig. 39 a, c, d-e, h). Other items were elements of clothing and decorations such as jewelry, beads, pendants, fibulae (Figs. 40-41), toilet articles, and cultic materials (Figs. 42-43). Balsam vessels, censers, mirrors, red paint, tools of labor, and armament (Fig. 30) also indicate the diversity of items. The remains of funeral feasts, sacrificial platforms, and pits have been found in the cemeteries. Burial rites reflect certain Sarmatian influences upon the late Scythian population of the Crimea (Raevsky, 1971; Vysotskaya, 1987). This is evidenced by the wide presence of niches and graves with ledges, meridional orientation, crossed legs of the dead, a high frequency of mirror pendants (Fig. 43c), and Sarmatian type arms. "Sarmatian signs" are also included in the burials (Fig. 27). The Greek influence is revealed in the use of amphorae, cut stone structures used in the burials, the practice of cremation of the dead, and the use of sarcophagi. Grave offerings included golden lip and eye pieces (Figs. 31-43), coins, and a particular type of tomb stelae (Fig. 44). Anthropological materials confirm that this population was ethnically mixed, combining the late Scythian population of the Crimea with Taurians, Sarmatians, and Greeks (Gerasimova, Rud', Yablonsky, 1987, p. 30; Konduktorova, 1964; Konduktorova, 1983; Zinevich, 1971).

The basis of the late Scythian economy was agriculture

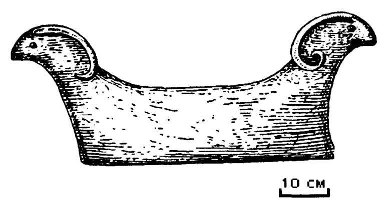


FIG. 42
SCYTHIAN
NEAPOLIS
CULTIC OBJECT
(CLAY)

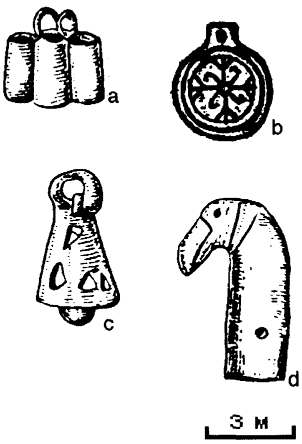


FIG. 43
SCYTHIAN CULTIC OBJECTS
A-B. NEOPOL'SKII CEMETERY
D. BELYAUSKII CEMETERY

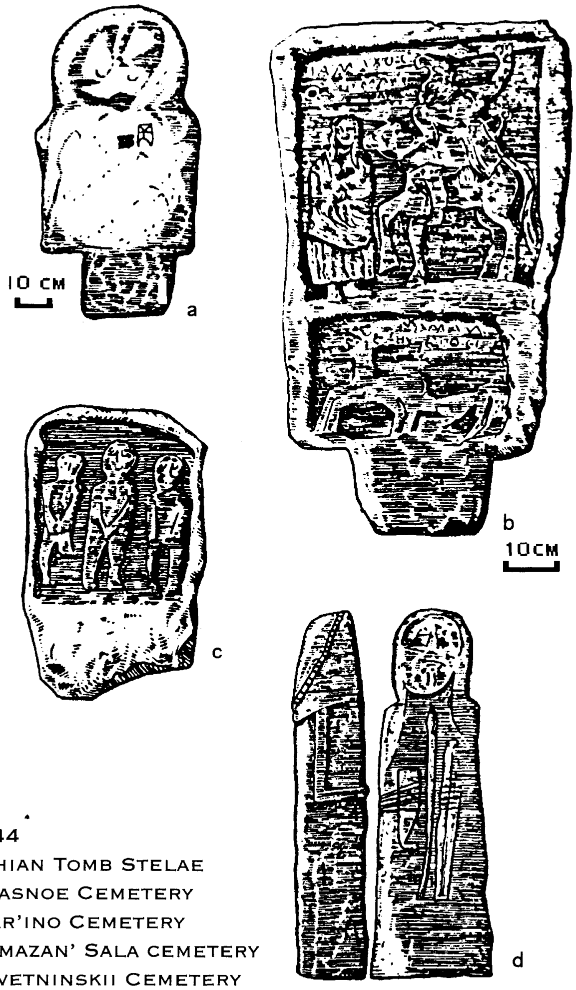


FIG. 44
SCYTHIAN TOMB STELAE
A. KRASNOE CEMETERY
B. MAR'INO CEMETERY
C. RAMAZAN' SALA CEMETERY
D. ZAVETNINSKII CEMETERY

and cattle breeding. They used the plough and mattock to cultivate wheat, barley, spelt, and millet (Yanushevich, 1986, pp. 45-60). They reaped their harvest with iron sickles. The grain was winnowed and dried on closed threshing floors. It was stored in vessels and bell shaped pits plastered with clay. Such pits have been found in almost all of the settlements. More than 200 were found in Scythian Neapolis. The grain was ground with rectangular and round millstones or was pounded in stone mortars. It was evident from the Greeks that the Scythians borrowed Greek skills to cultivate vegetable and fruit gardens and Greek techniques in viticulture and wine making. The Scythians cultivated vetch, lentil, peas, apples, and pears. Animal breeding continued to play an important role in the economy. Judging by the huge numbers of animal bones found in the settlements, the Scythians bred cattle, sheep, goats, horses, pigs, donkeys, chicken, and geese. Dairy produce processing was also practiced. The Scythians hunted deer, saiga (steppe antelope), hare, and fox, engaged in sea fishing, and collected edible shellfish and crabs.

Pottery was well developed. Kitchen and table earthenware (Fig. 39 b, h) was handmolded and fired in domestic conditions as well as in special kilns. The kilns have been excavated in the ancient towns of Kermen-Kyr and Kermenchik. The pottery is diverse both in form and size. Shapes include pots, basins, mugs, and ritual vessels. Remnants of clothing and felt and spindle whorls testify to the development of spinning and weaving. In Scythian Neapolis indications of iron and bronze smelting production have been discovered. With the use of various tools, stone, bone, and wood processing techniques reached a high level of development. From this technological foundation construction enterprises and the production of carriages and chariots developed.

Iconography in late Scythian art preserved its original ancient principles but, as a result of contacts with the culture of the Greek, the Sarmatians, and other peoples, iconography became more anthropomorphic. The tradition of mounting sculptures and stelae on the burial locations continued (Fig. 44 a, d). At the same time reliefs appeared with depictions of three registers of horsemen, warriors, and animals which imitated Greek sculpture (Fig. 44 b, c). In Scythian Neapolis reliefs depicting two men, perhaps Scilurus and Palacuscus, and a horseman with a spear who may be Palacuscus have been found. Judging from the remains of the pedestals with Greek inscriptions there were also statues of gods. The deities represented Zeus and Achilla Pontarch. Monumental wall paintings, previously unknown, appeared in vaults and public buildings. Animal style art was altered

as its popularity decreased and decorative ornamentation became much more popular among these Scythians.

The distinctive nature of the 1,000 year history of the Scythian culture in the Crimea was due to the long lasting, stable, and yet diverse relations with various cultures. In particular the Kizil-Kobinians, Greeks, and Sarmatians were most influential. Such a symbiotic relationship favored assimilation, not only in cultural and artistic form, but also in the ethnic contents of the culture. Based on findings researchers suggest that populations of ethnically mixed and integrated groups lived in the Crimea during this period. This is also confirmed by paleoanthropological data.

PART II

THE SAUROMATIANS AND SARMATIANS



CHAPTER 4

A BRIEF REVIEW OF THE HISTORY OF THE SAUROMATIAN AND SARMATIAN TRIBES

MARINA G. MOSHKOVA

According to ancient written sources the Scythian's eastern neighbors were a group of nomadic tribes whose lifestyle was similar to that of the Scythians. However, they spoke an earlier version of the Scythian dialect. These tribes were known to the Greeks as Sauromatians and during a later time period as Sarmatians. The history of these nomadic Iranian-speaking tribes begins in the late 7th to the early 6th century B.C. and continues to the 4th century A.D.

According to legends documented by Herodotus the Sauromatians originated from the Scythians. They were the descendants of young Scythian men and the Amazons, a mythical tribe of horsewomen. The history of the Sauromatians begins after the Battle of Fermodont which took place in the region where the Terme River in Cappadocia flows into the Black Sea. During the 1st millennium B.C. the Amazons who had been living in Cappadocia were forced to leave their land. After a long period of exile during which they lived on ships in the Black Sea they landed at Kremni, located on Lake Meotid (present Azov Sea), an area controlled by free Scythians. Not knowing that the Amazons were women the Scythians engaged them in battle. The Scythians were shocked to discover they were fighting women. They retreated leaving young Scythian men at the new Amazon camp. As time passed enmity gave way to peace and the young Scythian men and the Amazon women married. They left the shores of Lake Meotid and settled in the steppe land beyond the Tanais River (IV, 110, 115-116).

The legend also contains other interesting information about the Sauromatians, particularly about the special status of the women. The women dressed like the men, rode horses, shot bows, threw javelins, went hunting with their husbands, and even took part in military campaigns.. Herodotus notes that the women were never taught work typically associated with the female gender and that not a single girl married before killing an enemy. Sauromatian customs were also described by Hippocrates (24). The legends reflect an unique lifestyle and social status for Sauromatian women, customs not found among Scythian women.

In his description of Sauromatian settlements Herodotus wrote that "Scythians no longer inhabited the land on the other side of the Tanais River. The area closest north of the Tanais was occupied by the Sauromatians who controlled the territory a distance of 15 days travel north of Lake Meotid" (IV,

21). Because some of the information supplied by the ancient authors is often contradictory it is difficult to determine how far the Sauromatian lands stretched east and north from the lower reaches of the Tanais River. However, on the basis of the archaeological materials, it is assumed by archaeologists that the Sauromatians and other closely related tribes whose names have not been preserved in the antique literature inhabited the left bank of the lower Don River, the area between the Don and the Volga rivers, and the river banks beyond the Volga River.

Historical material about the eastern neighbors of the Sauromatians, tribes which lived in the steppes between the Volga and the Ural rivers and in the South Uralian steppes are sparse. In addition, the information that exists is contradictory. In an attempt to clarify the geography of these early tribes several recent works have been devoted to identifying the nomads living in the south Uralian region and associating them with various tribal units named by the ancient authors. The tribal groups include the Issedons (Machinsky, 1971, pp. 30-37; Shilov, 1975, p. 139), the Daha (Desyatchikov, 1974, pp. 9-10), the Daho-Massagetae of the west, and the Issedons of the east (Smirnov, 1977, p. 135). At present, it is difficult to give preference to any one of these theories.

During the 6th-5th centuries B.C. relations between the Scythians and the Sauromatians were peaceful. Penetration into each other's territories exemplifies the close ties that existed between these two nomadic groups. At the turn of the 5th-4th centuries B.C. the calm balance was thought to have been destroyed. Sauromatian raids grew more frequent and possibe peaceful penetrations into Scythian territories grew increasingly longer as the Sauromatians traveled further into Scythian territories. By the end of the 4th century B.C. groups of Sauromatians had moved into Eastern Europe as far west as the right bank of the Don River and to the northeastern coast of Lake Meotid. Archaeological evidence from the Sholokhovsky and Sladovskii kurgans dating to the 3rd quarter of the 4th century B.C. revealed Sauromatian presence between the lower reaches of the Don and Severskii Donetz rivers (Smirnov, 1984, p. 125). They probably also infiltrated to the right bank of the Severskii Donetz (Smirnov, 1984, p. 26). These events changed the political situation along the Scythian and Sauromatian borders. The western Sauromatian movements are considered to be echos of the migrations of eastern Sauromatians who lived in the southern Urals.

During the 4th century B.C. a new ethno-political movement took place on the western Sauromatian territory. The creation of this movement was a result of both internal developments and external influences. External forces included the campaigns of Alexander the Great which undermined the traditional simbiotic relationship between the nomadic and sedentary populations and the movements of the Central Asiatic and Aral Sea nomads and groups of mobile cattle-breeders from the northeastern forest-steppe regions into Sauromatian territories. These forces led to a demographic explosion among the nomadic populations occupying the southern Urals. At the end of the 4th century B.C. until the turn of the 3rd century B.C. these eastern groups had migrated en masse into western Sauromatian lands. The immigrant tribes asserted themselves in the lower Volga River region and in the Volga-Don interfluvial area where they assimilated some of the Sauromatians and pushed other groups into the eastern Azov Sea and Kuban River regions.

Indirect evidence of these events is found in the works of 4th-2nd century B.C. Greek authors such as Eudox, Pseudo-Skilak, Heraklidus of Pont, and Theophrastus. In their works these authors used appellations such as "Sirmatians" and "Sarmatians" instead of Sauromatians to refer to the tribes. The fact that the names "Sirmatians," "Sarmatians," and "Sarmatian" appear in the works of these Greek authors provides grounds to indicate that these ethnonyms referred to the same peoples. In 1925 M.I. Rostovtsev wrote about ethnonyms (Rostovtsev, 1924, p. 25). Rostovtsev's opinion is

supported by D.A. Machinsky who asserts that although from the 4th through 2nd centuries B.C. authors differentiated between "Sirmatian," "Sarmatian," and GYNAIKOKPATOYMENO (female dominated) These three names were synonymous beginning in the late 2nd century B.C. (Machinsky, 1971, pp. 48-49).

No later than in the 4th to early 3rd centuries B.C. the Sauromatian-Sarmatian nomadic masses began to stir in the region beyond the Don River. Occasional graves located deep in Scythia belonging to the Sarmatian military support the idea that some Sarmatian military units penetrated into the Don-Dnieper interfluvial. The graves date to the 3rd and 2nd centuries B.C. (Kostenko, 1981, p. 8). At the beginning of the 3rd century B.C. and following through the early half of this century the principal Sauro-Sarmatian expansion was toward the pre-Caucasus particularly in the western Azov Sea region, along the Kuban River, and in the central Stavropol city area. This expansion is noted in the early 3rd century B.C. when the old town of Elizavetovskoye located in the Don River Delta was abandoned. The Bosporus colony had been established in the Don River Delta in the early 3rd century B.C. after the inhabitants of Elizavetinskoye had left the territory. In the 360s B.C. the colony was destroyed (Marchenko, 1987, p. 9).

In recent years archaeologists have reported a mass of Sarmatian graves dating from the 3rd-1st centuries B.C. These graves are located in the eastern Azov steppes. Finally, in the early 3rd century B.C. the old town of Grushevskoye (7th through 3rd centuries B.C.), located near Stavropol city in the central pre-Caucasus area, ceased to exist. About the same time or slightly later, perhaps beginning in the 2nd half of the 3rd century B.C. or at the turn of the 3rd-2nd centuries B.C., great masses of Sarmatians began to migrate to the north of the Black Sea. This event was the subject of an important communication written by Diodorus Siculus (80-29 B.C.) which has survived in his "Historical Library." The work is based on the 2nd century B.C.writings of Polybius and Poseidonius. Diodorus Siculus (II, 43) wrote that the Sarmatians, having become much stronger many years later, plundered a considerable part of Scythia and turned a greater part of the country into a desert by exterminating the Scythian population to a man. It is concluded that the political sway in the Black Sea steppes changed following these events and that Scythia was occupied by the Sarmatians.

According to available archaeological and written sources the first powerful wave of Sarmatian hordes stopped at the banks of the Dnieper River. At the turn of the 3rd-2nd centuries B.C. the Scythians erected fortified settlements in the lower Dnieper River region. After conquering Scythia and pushing the nomads into the lower Dnieper River region and the Crimean steppes the Sarmatians became a mighty political force in the North Black Sea steppes. All of the surrounding tribal unions and states were forced to interact with them.

The names of Sarmatian tribal unions including the Yazigs, Rhoxolani, Aorsi, and Siraki appear for the first time in the *Geography of Strabo* (65 B.C.-25 A.D.). The Aorsi and Siraki were placed east of the Don River in Asiatic Sarmatia. The Rhoxolani were located behind the Dnieper (Borysthenes) River in the interfluvial of the Don and Dnieper rivers. The Yazigs were placed in the west near the Bastarnae (Strabo VII, II, 4; VII, III, 17; XI, II, 1; XI, V, 8).

A majority of researchers believe that the ethnic map of Strabo reflected the actual situation but they differ about the exact timing of the situation. The preferred view is that of D.A. Machinsky who agrees with the information provided by the map of Strabo. The map defines the eastern European steppe and western forest-steppe as the actual location of the Sarmatian tribes. They occupied this region not earlier than the last third of the 2nd century B.C. or possibly in the middle of the 1st century B.C.

The subsequent political histories of both the European and Asiatic Sarmatians were marked by wars, raids, and campaigns and were amplified by waves of mass Sarmatian resettlements. For example, around the middle of the 1st century B.C. the Yazigs who, according to Strabo (VII, II, 17), lived between the Dnieper and the Danube rivers, crossed the lands inhabited by the Bastarnae and Daci and occupied the plains between the Danube and Tissa rivers. From this region they continued to harass Rome for many years. Probably in the late 1st century B.C. or at the turn of the era the Rhoxolani crossed over to the right bank of the Dnieper River. The earliest compact Sarmatian cemetery dates to the 1st century A.D. and is recorded at Ust-Kamenka (Makhno, 1960).

Beginning around 50 A.D. the Rhoxolani were in the Danube River area. From this vantage point they organized raids against the Roman province Mezia (Tacitus, *History and Annals* I, 79). On the basis of the works of Tacitus, Mela Pomponius, and Ptolemy it is possible to infer that as early as the middle of the 1st century A.D. the Aorsi territory was east of the Don River and extended west to the Don-Dnieper interfluvial. This area had been abandoned by the Rhoxolani probably due to pressure from the Aorsi. The Siraki also formed a rather large union. The majority of researchers believe they occupied all the eastern Azov Sea region, the Kuban River area, and possibly some parts of the central pre-Caucasus.

After reaching the north Black Sea steppe the Sarmatians entered into a close relationship with the people of the ancient colonies especially with the those of the Bosporus Kingdom and others in the Tanais River region. Influenced by Greek and later Roman cultures the Sarmatians, in turn, exerted great influence on the customs and culture of the Greek colonies. The bellicose, strong, and mobile Sarmatians participated in all of the conflicts and wars between the Bosporus Kingdom and Rome, Chersonesus and the Scythians as well as in conflicts with other cities of the North Black Sea region. They allied themselves first with one group and then another.

In 49 A.D. during the struggle between the Mithridates and Cotys over the Bosporus throne, the Siraki sided with Mithridates. The Aorsi were allied with the Cotys who were supported by Rome. Mithridates and the Siraki suffered defeat. The united Roman, Bosporian, and Aorsi armies destroyed the Siraki capitol, Uspe (Tacitus, *Annals*, XII, 16, 17). The site of this city has not yet been discovered. In spite of this victory, by the second half of the 1st century A.D. the name Aorsi had disappeared from written sources. Communications about the wars between the Sarmatian tribes came to an end at this time. However, it is questionable that the Siraci and Aorsi populations disappeared forever immediately after the war of 49 A.D. Both archeological material and written sources indicate that up to the late 1st century A.D. the Siraki and the Aorsi continued to live as before in the southern steppes between the Don and the Volga rivers as well as in the pre-Caucasus region.

Not later than the middle or third quarter of the 1st century A.D. from the region around the Don River and subsequently the steppes north of the Black Sea emerged a new and large nomadic union called the Alans. They conquered or assimilated the remaining Sarmatian tribes. Between 50 A.D. and 60 A.D. the ethnonym Alan was mentioned for the first time by the Latin writers Seneca and Lukan. Seneca places the Alans in the lower Danube river area while Lukan suggests that they occupied the pre-Caucasus. In the 7th decade A.D. the Alans are mentioned in works of Valerius Flaccus, Pliny the Younger, and Fl. Josephus. The most trustworthy source among the early communications concerning the Alans who lived "along the Tanais and in Meotida" is provided by Fl. Josephus (VII, 7, 4). He describes the Alans' devastating raids on the trans-Caucasus in the year 72 A.D. From the second half of the 1st century A.D. to the 4th century A.D. the name Alan is present in the works of the ancient authors. Although their principal territory remained behind the Tanais River and in the pre-

Caucasus, their constant raids, their participation in all the conflicts and wars between the surrounding state formations, and their unceasing campaigns against the trans-Caucasus populations and the eastern Roman provinces kept the sedentary populations in a constant state of terror. Sextus Aurelius Victor (XLVII, 3) wrote in the second half of the 4th century A.D. that the Alans "are worse than any trouble."

Written sources indicate that the Sarmato-Alans continued to rule east of the Don River and in the North Black Sea steppes until they were invaded by the Huns in the late 4th century A.D. However, archaeological materials provide a different picture. In the late half of the 1st century A.D. until the middle 3rd century A.D. the Sarmato-Alan sites are quite numerous particularly those east of the Don River. In the lower Volga River region, the left and right banks of the Don River, and the Azov steppes, the Sarmato-Alan sites of the second half of the 3rd century A.D. and into the 4th century A.D. are less numerous than previously but are still recorded. Such sites are rare in the North Black Sea steppes but are more frequent in the region northwest of the Black Sea. There are no archaeological grounds to support the theory that the Sarmatian nomads dominated the territory north of the Black Sea after the middle of the 3rd century A.D. However, the discrepancy between the written sources and the archaeological material remains unsolved.

The final fall of the Alans occurred in the late 4th century A.D. when their territory was swept by Hunnic fire and sword. Some members of the Alan union were absorbed by the Huns while others fled west and reached the shores of Gibraltar. Another group settled in the North Caucasus and became a component of the Caucasian Alani. Still another group of the Alans became a component of new ethnic unions of the early Middle Ages that emerged north of the Black Sea and along the Don River. After the Hunnic invasion the independent unions of Iranian-speaking nomads came to an end.

Chapter 5

History of the Studies of the Sauromatian and Sarmatian Tribes

Marina G. Moshkova

Interest in the history of the Early Iron Age Eurasian nomadic tribes began in the 18th century. In the early 19th century Russian historiography began to use the works of antique authors in an attempt to determine the geographical locations of the Sauromatian and Sarmatian tribes. Near the end of the 19th century V.F. Miller (1886, 1887) theorized that the Scythians and their kindred, the Sauromatians, were Iranian-speaking peoples. This has been a popular point of view and continues to be accepted in linguistics and historical science (Abayev, 1949). Sarmatian archaeology began with excavations conducted by V.A. Gorodtsov in 1905 and 1907 when he identified a number of Sarmatian kurgans.

The first summary of the Sauromatian Period of research was prepared by M.I. Rostovtsev (Rostovtsev, 1918a). He compared the archaeological materials known at that time from the lower Volga River and southern Ural steppes with historical documentation and identified the Sarmatian tribes as Iranian in origin. In spite of the paucity of archaeological materials available at the time, Rostovtsev was able to formulate an archaeological chronology and determine the time periods of the Sarmatian archaeological sites he studied. However, he negated the possibility of genetic ties between the Sauromatians of Herodotus and the Sarmatians of the Greek and Roman periods. Rostovtsev attributed nearly all the sites that he studied as having belonged to the early Sarmatians and stressed their Iranian cultural characteristics. He justified the different dating of the kurgans he studied from the 5th-4th and 3rd-2nd centuries B.C. to successive Sarmatian waves.

In the 1920s archaeological material associated with the Sarmatian tribes was accumulated. In 1921 systematic studies were conducted in the lower Volga River region under the direction of P.S. Rykov.[1] Later, B.N. Grakov excavated the famous Blumenfeld Kurgan. Beginning in the late 1920s excavations were carried out in the southern Ural steppes on the right bank of the Volga River and in the Kalmykia region. In articles he published shortly thereafter Grakov (1928, 1928a) divided all of the archaeological sites from these territories into two chronological groups: one from the 6th to the 1st half of the 4th century B.C. and the other from the late 4th to the 2nd century B.C. Grakov

identified the earliest of these sites, the so called Blyumenfeld type, not as Sauromatian but as Scythian kurgans. He wrote that "the inhabitants [who left this culture] were remnants of the Scythian migrations" (1928a, p. 154). Around the same time P.D. Rau (1929) singled out a group of early archaeological sites in the lower Volga River area and dated them to the 6th-4th centuries B.C. He identified them as belonging to the Sauromatian tribes about which Herodotus' wrote in his *Histories*.

The accumulation of mass archaeological materials continued during the 1930s. World War II delayed but did not interrupt studies in the field of Sarmatian history. In 1947 Grakov published an article of great importance entitled "GYNAIKOKPATOYMENO"[2] (meaning "Survival of Matriarchate") which determined the direction that archaeologists studying the Sauro-Sarmatian history would take during the next decades. The enormous evidence that many archaeologists had been gathering during the previous years enabled Grakov to determine that the vast territory stretching from the Don River to the southern Ural region (Emga River, city of Orsk) had been occupied by one and the same archaeological culture. However, Grakov drew attention to some of the specific cultural features of both the western (Volga-Don River) and the eastern (southern Ural steppe) tribes. This culture thus had occupied both the Sauromatian region (according to Minz and Rau) and the Sarmatian region (according to Rostovtsev). Therefore, two alternatives for interpretation existed. The first interpretation was that an ethnogenetic tie existed between the Sauromatian and Sarmatian people. The second possibility, as Rostovtsev believed, was that the Sarmatians had arrived from the east. Grakov preferred the first option and presented a convincing argument which has subsequently been accepted by archaeologists.

Another aspect of research defined the chronological periods for the entire history of the Sauro-Sarmatian tribes. Grakov identified 4 stages or levels of culture and named each period:

First Period: the Sauromatian or Blyumenfeld cultures, 6th-4th century B.C.
Second Period: the Sauro-Sarmatian or Prokhorovskaya culture, 4th-2nd century B.C.
Third Period: Sarmatian or Suslovo culture, late 2nd century B.C to 2nd century A.D.
Fourth Period: the Alan or Shipovskaya culture, 2nd-4th century A.D.

Grakov tied these cultural periods together under the general title of "Sarmatian Culture" indicating the existence of ethnic ties throughout the millennium-long history of the nomads.

For several decades this chronology stood and only the names of the cultural periods changed. The Second Period was renamed the Early Sarmatian or Prokhorovskaya culture. The Third Period became known as the Middle Sarmatian, and the Fourth period was renamed the Late Sarmatian. Designations such as Alanskaya or Shipovskaya culture were dropped completely from use.

The post World War II years were marked by an unprecedented scope of fieldwork. Large scale excavations were conducted in the trans-Volga River region, in the interfluvial of the Volga and Don rivers, and in the regions north of the Black Sea. From the late 1950s systematic investigations and excavations continued in the southern Ural region including the steppes of Bashkortostan ASSR.[3] In the early 1970s investigations began on the left bank of the Dnieper River at the basins of the Orell and Samara rivers. Particularly intensive fieldwork continues to this day in the lower Don River region and in the pre-Caucasus steppes.

During the 1960s and 1970s publication of general works on some of the archaeological cultures began. Major attention was focused on the ancient history of the Sauromatian and the early Sarmatian tribes in the territory of their original settlements east of the Don River. Studies of the Sauromatian Culture in two regions, the Volga-Don river region and the Sarmaro-Uralian region, and the local variants found in these regions have been particularly fruitful. In his works K.F. Smirnov clearly outlined the cultural differences of the two regions. His 1964 book[4] remains the model for study and provides the most scrupulous analysis of all of the archaeological material. Smirnov's book discusses the origins of the Sauro-Sarmatian nomadic tribes and their development. It also divides the chronology of these tribes. His book also discusses their economy and economic production. It describes their social order, arts, religious, and cultic concepts. Smirnov outlines trade contacts and relations with neighboring tribes. He raised these questions and presented new solutions to previously documented problems. Smirnov offered a hypothesis suggesting the indigenous origins of the lower Volga River and southern Uralian nomads. He suggested that they were descendants of the Timber-Grave and Andronovo cultures.[5]

Many problems are involved in the study of the second period or the Early Sarmatian or Prokhorovskaya culture. Grakov tried to prove that an ethnogenetic relationship existed between the Sauromatian and Early Sarmatian tribes. Subsequent researchers attempted to understand how the new Early Sarmatian archaeological complex had formed and what internal and external causes triggered the processes. Gradually, two main concepts emerged. The first concept suggested that the formation of the Prokhorovskaya-Early Sarmatian Culture occurred among the nomadic populations of the southern Ural steppes aided by some participation from foreign ethnic elements. These elements came principally from the forest-steppe trans-Urals (Gorokhovo and Itkul cultures) and from the steppes of Kazakhstan. Foreign elements may also have come from the northeastern Aral Sea region and from the territory between the Caspian and Aral seas. Some elements of Early Sarmatian Culture are found as early as the 5th century B.C. in the southern Ural steppe sites especially in the eastern and northeastern regions. Cultural traits are found in elements such as round-bottomed vessels and southern orientation of the dead.

Archaeologists have found evidence from the late 4th century B.C. to the turn of the 3rd century B.C. that they believe indicates mass migrations of southern Uralian nomads to the southern region. At this time the indigenous Sauromatians of Herodotus were partially supplanted and partially absorbed by the Sarmatians. The local Sauromatians infused different characteristics into the Volga-Don River region variation of Early Sarmatian Culture which contrasts with the southern Ural steppe variation (Smirnov, 1960, p. 257, 1964c, p. 286; Moshkova, 1963, pp. 4-6; Moshkova, 1974, pp. 36, 47; Moshkova, 1989, pp. 26-33).

The second concept was abandoned by V.P. Shilov (1975, p. 133) who differed in opinion. He believed that the lower Volga River Early Sarmatian Culture formed simultaneously on the base of the Sauromatian Culture but was independent from the Prokhorovskaya Culture. New material from the Volga River and southern Ural regions, especially from the trans-Ural region does not support Shilov's viewpoint.[6]

In addition to monographic studies on the Sauromatian and Early Sarmatian tribes a later and more general work on the Late Sarmatians was published in 1984 by A.S. Skripkin. To date no general work has been done on the Middle Sarmatian Culture. However, a general idea about the period is presented in *Archaeology of the USSR, Steppes of the European Part of the USSR in the Scytho-Sarmatian Period* (Melyukova, 1989).

The question of the expansion of Sauromatian and Sarmatian tribes from the territory of their initial settlement includes a number of debatable points. These points focus on the time of the beginning and the intensity of Sarmatian movements east of the Don River and when the most powerful waves of resettlement occurred. These waves of Sarmatians ultimately brought down Scythian rule in the North Black Sea area. An additional debatable point focused on the direction of the Sarmatian expansion and its impact on specific regions. The principal differences of opinion concern the problems of determining the time frame, the character of the massive westward Sarmatian expansion, and the period in which their political dominance was consolidated in the north Black Sea steppes. The date of Diodorus' communication concerning the Sarmatian extermination of Scythians "to a man," and of the change of the greater part of Scythia "into a desert" varies among the researchers who have studied the material which dates from the late 4th century B.C. to the turn of the 3rd-2nd century B.C. and to the early 2nd century B.C. (Rostovtsev, 1925, p. III; Grakov, 1954, p. 28; Vinogradov, 1963, p. 38; Smirnov, 1964, p. 290; Shelov, 1970, pp. 62-65; Machinsky, 1971, pp. 44-54; Khazanov, 1971, p. 65; Scheglov, 1978, p. 119; Kostenko, 1981, pp. 16, 33; Maksimenko, 1983, pp. 128-129; Vernadsky, 1944, p. 74; Harmatta, 1970, pp. 19, 30-31). The majority of the scholars consider that the Sarmatians "exterminated" the Scythians at the end of the 3rd century B.C. to the early 2nd century B.C. (B.N. Grakov, K.F. Smirnov, D.B. Shelov, A.M. Khazanov, G. Vernadsky, and J. Harmatta).

There is some specificity in A.N. Scheglov's position. He believed that the Sarmatian destruction of Scythia took place within the 1st quarter of the 3rd century B.C. but that the steppes north of the Black Sea were populated by the Sarmatians only somewhat later. In recent years an additional theory has developed. The demise of the Scythian kingdom in the territory of the lower Dnieper River and the Crimean steppes occurred as a result of worsening climatic conditions, and that the Sarmatians migrated into the uninhabited lands not earlier than late 2nd century B.C. to the mid-1st century B.C. In support of this theory researchers (Polin, 1984, pp. 33-34, 1989; Polin, Simonenko, 1990) argue that Sarmatian sites of the 3rd-2nd century B.C. are absent in the North Black Sea region. This theory has not received support from other researchers. Sarmatian materials of the 2nd century B.C. and especially of the 3rd century B.C. are scattered from the Don River to the Dnieper River (from the sites of Klimenkovka, Antipovka, Balakleya, Bulakhovka, and the so-called "hoards" from Starobel'skij, Taganrogskii, and Yanchokrak).

The majority and the most diverse questions are connected with the last period of Sarmatian history, the Late Sarmatian Culture (2nd-4th centuries A.D.).

Excavations in recent decades throughout the entire territory settled by Sauro-Sarmatian tribes and in adjacent regions have yielded important new materials. The entry of a younger generation of scholars into the science has led to a re-evaluation and revision of some seemingly settled perceptions. As a result, a new set of debatable questions has been presented.

In recent years archaeologists have questioned the existence of a single Sauromatian archaeological culture with local variants. Some scientists have hypothesized that two independent cultures were present, one in the Volga-Don River region and the other in the Samara-Uralian region. This debate has brought forth the questions regarding the similarities or differences between the two archaeological complexes and burial rites.

Recently, a study addressing this issue was published by M.A. Ochir-Goryayeva (1988). She conducted her comparative analysis on the burial complexes of the 6th-4th centuries B.C. in the lower Volga River region and southern Ural steppe region. Criteria used in her study included a few main culture forming traits such as burial rites, hand-modelled pottery, and weapons. On the grounds of estab-

lished differences, Ochir-Goryayeva postulates the existence of two different archaeological cultures, one in the lower Volga River area and the other in the southern Ural steppe region. This concept may be correct but all of the problems are not resolved. Unfortunately, the archaeological terminology has not been established nor the criteria developed to attribute the archaeological complexes to the specific cultures or the local variants.

This most recent viewpoint concerning the existence of two discrete archaeological cultures has accentuated the fact that significant differences exist between the material culture from the Volga-Don and that from the southern Ural archaeological sites. The viewpoint has been regenerated and questions regarding the presence or absence of an ethnogenetic relationship between the Sauromatians of Herodotus and the Early Sarmatians have arisen. A recently published article by A.S. Skripkin (1988, p. 28) assumes that because the Prokhorovskaya or Early Sarmatian Culture spread from the southern Ural steppes as the result of military expansion, the possibility of a Sauromatian and Sarmatian genetic continuity must be excluded. This argument is open to criticism on two points. First, the degree of similarity between the two cultures is great and points to close kinship ties between the two nomadic groups. Some of the lower Volga River sites (Krivaya Luka, Khosheutovo) indicate insignificant and apparently quite peaceful cases of penetration by the southern Uralian nomads into this territory as early as the 5th century B.C. Second, it is possible that the Sauromatians were completely exterminated or forced out of the Volga-Don River steppes. On the contrary, it appears more probable that a process of integration took place between the two nomadic groups. This would give rise to the creation of the local lower Volga River variation of the Early Sarmatian Culture. The integration would account for the cultural difference between the lower Volga River and the southern Ural steppe cultures. It follows, then, that it is hardly possible to negate a genetic continuity of the lower Volga River nomads from the 6th-4th centuries to the 4th-2nd centuries B.C.

The chronological divisions suggested by B.N. Grakov are also subject to some revision. In particular, the closing date of the Early Sarmatian Culture is questionable. A.S. Skripkin and other archaeologists suggest that the end of this period was much later. These scholars date the Early Sarmatian Culture of the lower Volga River region, not to the 3rd-2nd centuries B.C. but to the 3rd-1st centuries B.C. The principal argument for prolonging the existence the Early Sarmatian Culture was the existence of some Middle Laten fibulae in typically Prokhorovskaya complexes dating to the 2nd-1st centuries B.C. For now, the question remains open to debate and the argument in favor of the more recent date is not entirely convincing. This debate will be resolved only through further excavations and studies drawing upon the entire range of available sources.[8]

The scope of the problems involving the history of the Sauro-Sarmatian nomads and their entire territory is large and continues to grow as additional material becomes available. For this reason it is not possible to cover all of the excavated materials discovered. This essay is limited to the most important aspects.

Notes

Chapter 5

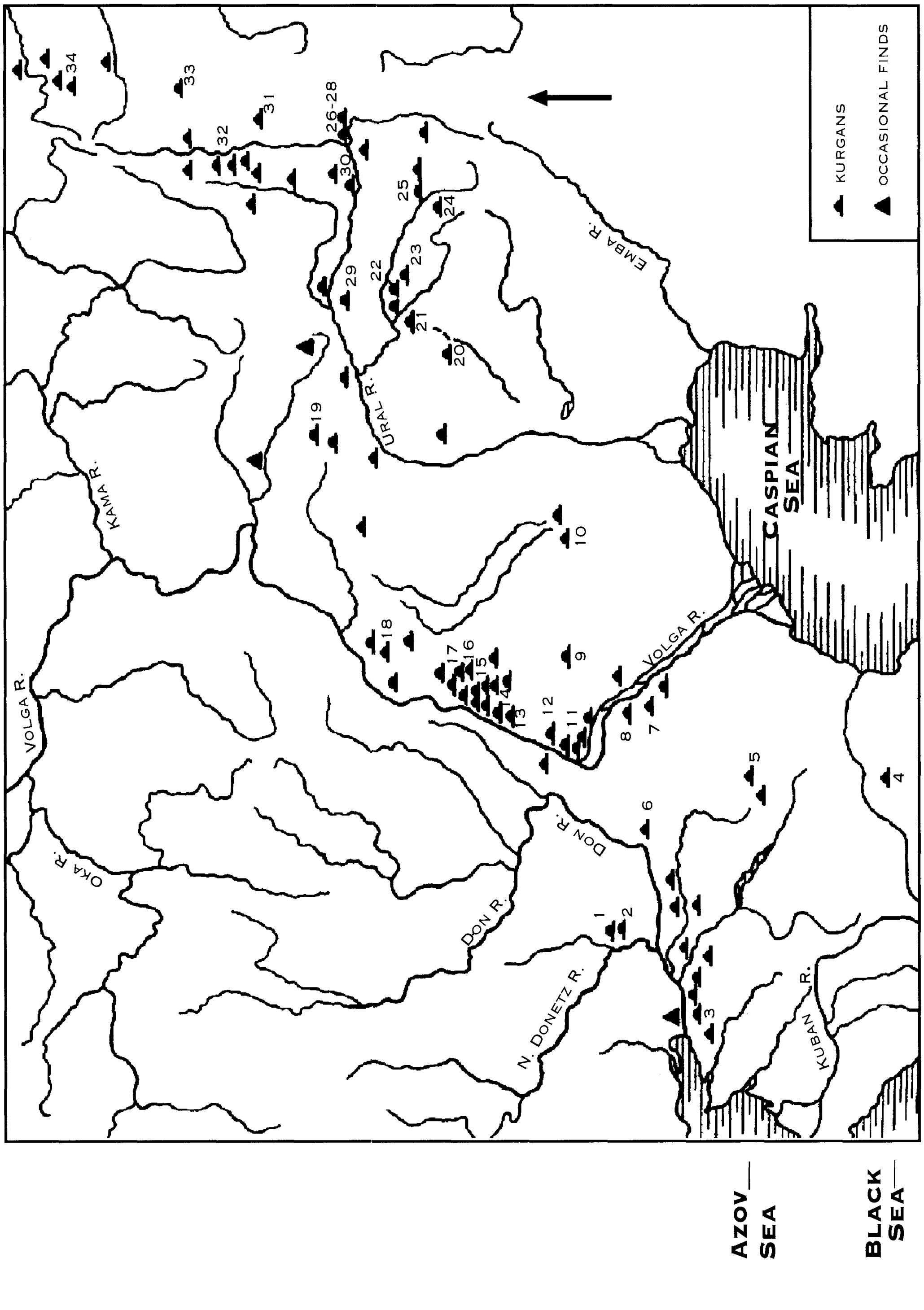
History of the Studies of the Sauromatian and Sarmatian Tribes

1. Rykov's students include P.D. Rau, I.V. Sinitsyn, and A.N. Arzyutov.
2. "Perezhitok matriarkhata u sarmatov."
3. Previously called Bashkiria. (Ed. note)
4. Sauromats.
5. This is discussed in greater detail below.
6. Unlike K.F. Smirnov and M.G. Moshkova, V.P. Shilov differentiated between the Prokhorovskaya and the Early Sarmatian cultures. He describes the former as the southern Ural steppe culture and the latter as the lower Volga River culture.
7. Stepi evropeiskoi chasti SSSR v skifo-sarmatskoe bremya, Moscow, 1989.
8. For more details see Moskhova, 1989, pp. 36-45.

Monuments of the Sauromatian Culture

1 - Sholokhovskii	18 - Susly
2 - Sladkovskii	19 - Lyubimovka
3 - Koisug	20 - Lebedevka
4 - Achikulak	21 - Pokrovka
5 - Tri Brata [Three Brothers]	22 - Mechet-Sai
6 - Aksenovskii	23 - Pyatimary I, II
7 - Krivaya Luka	24 - Syntas, Bis-Oba
8 - Staritsa	25 - Ak-Zhar
9 - Saikhin	26 - Novii Kumak
10 - Dzhangala	27 - Starii Kumak
11 - Verkhne-Pogromnoe	28 - Tri Mara
12 - Kalinovka	29 - Bis-Oba
13 - Bykovo I, II	30 - Sara
14 - Politotdel'skoe I, II	31 - Alandskoe
15 - Berezhnovka I, II	32 - Al'mukhametovo
16 - Blumenfełd	33 - Varna
17 - Khar'kovka	34 - Chernyaki

Key to Map 5. Monuments of the Sauromatian Culture



DVORNICHENKO

MAP 5. MONUMENTS OF THE SAUROMATIAN CULTURE

CHAPTER 6

SAUROMATIANS AND SARMATIANS OF THE EURASIAN STEPPES: THE TRANSITIONAL PERIOD FROM THE BRONZE AGE

VLADIMIR V. DVORNICHENKO

One of the most complex questions concerning Sarmatian archaeology involves the origins of two variants of the Sarmatian Culture. One variant is found in the Volga-Don interfluvial zone while the second is located in the southern Ural steppe region. The only plausible approach to resolving the origins of the variants is through the context of global changes which took place in these territories during the Late Bronze Age, particularly at the turn of the 2nd to the 1st millennium B.C. At that time the agrarian steppe populations were completing the transition to a new mode of economy. There seems to have been an indubitable connection between the climatic changes which brought about a deterioration of the steppe ecology, and the transition from an agrarian lifestyle to a nomadic cattle breeding society (Zhelezchikov, 1986, pp. 59-60). Within the Eurasian steppe zone, horse breeding brought about major changes in the economy. The skill and ability to ride horses gave the populations increased adaptability to the environment. This in turn allowed broader cultural contacts. The nomads also now engaged in frequent military conflicts. Increased economic and military contacts brought about a greater ethnic heterogeneity. Relations that developed between the steppe nomads and sedentary populations were also unique. The nomads served as a conduit through which cultural achievements were actively transmitted to other cultures. Conversely, drawing from an established industrial base, the sedentary population was able to supply the nomads with necessities and luxury items.

In the steppes of eastern Europe during the transition from the Bronze Age to the Early Iron Age, the Late Bronze Age cultures gave way for the early developing Scythian and Sauromatian nomads. Before the advent of the Scythians the Cimmerians had occupied the Black Sea steppe region. In 8th-7th centuries B.C. the material culture of the pre-Sauromatians occupying eastern Europe reflected the material culture of the Cimmerians and of other populations who lived

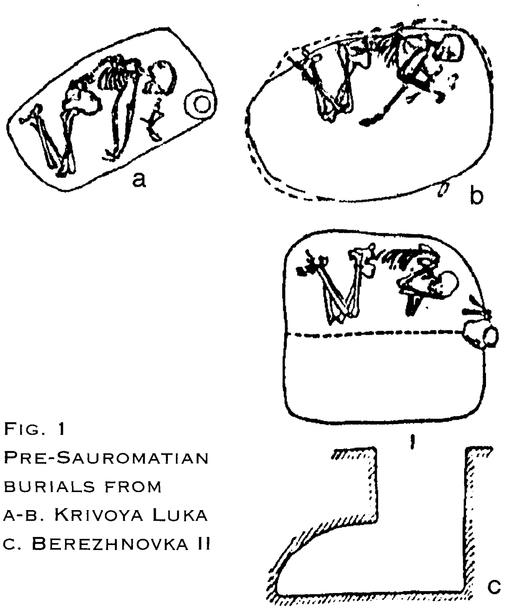


FIG. 1
PRE-SAUROMATIAN BURIALS FROM
A-B. KRIVOYA LUKA
C. BEREZHNOVKA II

east of the Don River. On the basis of an analysis of these pre-Sauromatian sites, K.F. Smirnov (1964), a prominent student of Sauro-Sarmatian antiquities, hypothesized that the Sauromatian culture developed from two kindred cultures. The first culture was the Timber-Grave Culture located in the Volga River region and the second was the Andronovo Culture located in the southern Ural steppes. The Andronovo Culture also included a migratory element. Smirnov based his conclusions concerning the Volga River region culture upon a considerable body of archaeological data. In the southern Ural steppes essentially no sites have been excavated that contained material culture which corresponded to the transition period, from Bronze Age to the Early Iron Age. In southern Ural steppes the Sauromatian cultural material (Early Iron Age) varies significantly from that of the Volga-Don interfluvial. Because of the lack of sufficient information no conclusions have yet been made concerning the development of the southern Ural cultures.

In the Volga River region the late Bronze Age traits which were preserved reveal burial rituals. The nomadic cultural remains dating to the transitional period contained components which have been attributed to the Bronze Age. The cultural remains also contained innovative elements. The innovative features found in the transition burials came about because the people took up a military lifestyle. Both complex and simple burial structures are found. The dead were frequently buried contracted on the left side with the head oriented as in the previous period (Fig. 1). Some burials include the application of pigments and elements of fire rituals. The traditions of local ceramic production (Fig. 2) along with the black burnished pottery from the North Caucasus or possibly from the North Black Sea area (Fig. 3) survive to a considerable extent. Nevertheless, the greater part of the heritage can be traced to the Sauromatian Culture located in the Volga River region.

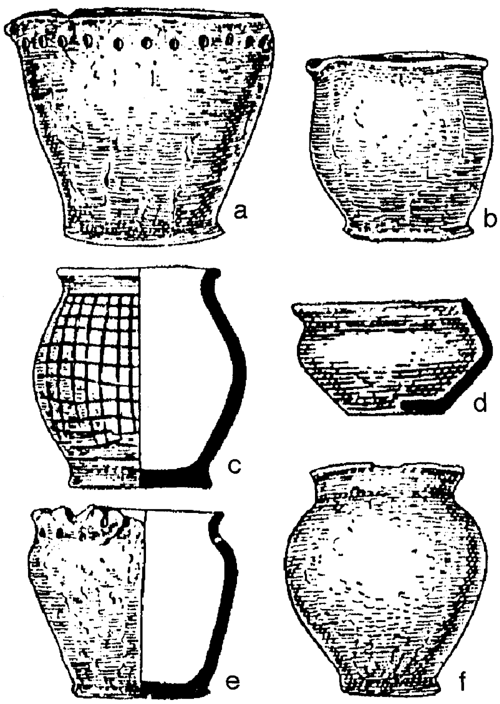


FIG. 2
PRE-SAUROMATIAN CERAMICS FROM BURIALS IN THE DON-VOLGA INTERFLUVIAL

In the Samaran steppes on the middle Volga and the Ural steppe region the ancient heritage from the Bronze Age Andronovo Culture is especially apparent in the fire cult rituals found in the burials. This type of burial is distributed over a large area. The Andronovo cultural influence is also possibly found in the continued use of complex burial structures. New innovations in the buri-



FIG. 3
PRE-SAUROMATIAN CERAMICS FROM BURIALS IN THE DON-VOLGA INTERFLUVIAL

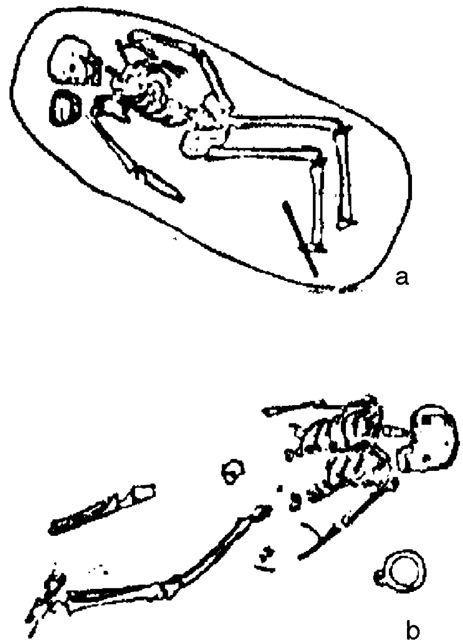


FIG. 5
PRE-SAUROMATIAN PERIOD BURIALS
A. BEREZHNOVKA
B. TSENTRAL'NII

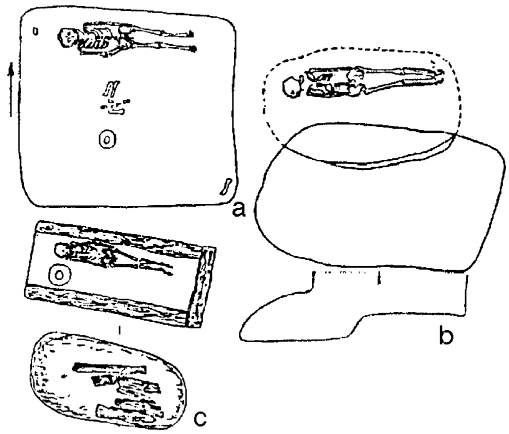


FIG. 4
PRE-SAUROMATIAN BURIALS
A. LEBYAZHKA
B. KOISUG
C. ALITUB

als include the deceased now in supine position, sometimes with their legs slightly flexed (Fig. 4), the western orientation of the head (Fig. 5), modified forms of the grave pits, and the appearance of *podbois*, the side niches in the tombs (Figs. 1c, 4b). A new complement of resourceful artifacts characteristic of the nomadic military cultures included bridles, arrowheads, knives, daggers, and whetstones. (Fig. 6). All of these innovative grave offerings are found within the mainstream of the general cultural dynamics of the transitional period and continued to develop in the Sauromatian Culture.

Within the framework of the transitional period cultural relationships were established. These relationships contributed to the formation of the Sauromatian Culture both in the Volga-Don interfluvial and in the Samaro-Ural steppes. Migrational processes also played a prominent role in the formation of the cultures. The principal formative impetus found in the Volga-Don

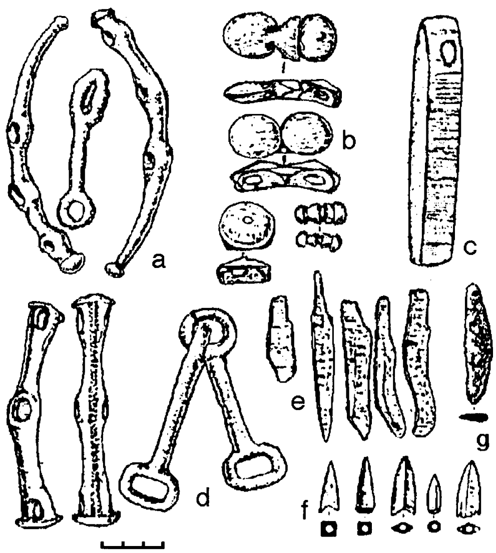


FIG. 6
EXCAVATED AND CHANCE FINDS DATING TO THE PRE-SAUROMATIAN PERIOD
A. PSALIA (BRONZE)
B. HORSE GEAR (BONE)
C. OBJECT OF UNKNOWN USE (STONE)
D. PSALIA AND BIT (BRONZE)
E. TOOLS (BRONZE)
F. ARROWHEADS (BONE)
G. KNIFE (IRON)

interfluvial came from the North Caucasus and the Black Sea regions. Continuing over time the forest-steppe trans-Urals, Siberia, Kazakhstan, and Central Asia contributed to the development of the Samaro-Uralian culture (Smirnov, 1964). Nomadic tribes which actively contributed to the formation of their culture in the southern Ural steppes probably immigrated from an area adjacent to the Aral Sea (Pshenichnyuk, 1982; Zhelezchikov, 1986). At almost the same time, and undoubtedly under considerable Scythian influence, the Sauro-Sarmatian material cultural complex was taking shape in the Volga River region. Although there was originality in the material culture of the Volga River region, the artifacts from that area display much in common with those found in the southern Ural steppes.

CHAPTER 7

SAUROMATIAN CULTURE

VLADIMIR V. DVORNICHENKO

The Sauromatian Culture from both the Volga River region and the southern Ural steppes has been consolidated into a single unit primarily by the similarities in the customs as recorded in burial rites. In both regions the dead were placed either in the principal or secondary tombs which were constructed as wide or narrow rectangular pits. At times ledges were built along the sides of the principal burial which in turn held additional burials (Figs. 1- 2). Niches (*podbois*) and catacombs have occasionally been noted in the southern Ural area burials (Fig. 3). For the most part the burials were single. The rare collective graves have been found only in the southern Ural region. The deceased were supine with their heads most generally oriented to the west. However, as early as the 6th-5th centuries B.C., southern orientation is noted in the southern Ural region. Wood ceilings were constructed in the burials. In some cases a more complex burial superstructure was built especially in the southern Ural area (Fig. 2e). However, dependent upon availability, stone was used more frequently than wood (Figs. 3, 4). The graves often contained remnants of organic coverings spread over the deceased and mats had been placed under the body. In the Samara-Ural steppe, evidence of the fire cult is verified by burned structures, remnants of fire, and skeletons covered with ash or charcoal. Only occasionally is evidence of cremation encountered. Fire substitutes and symbols for fire including charcoal, ash, shells, and less frequently, red ocher are consistently found in the burials.

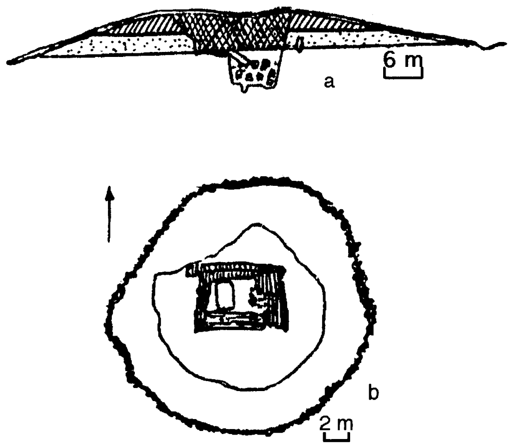


FIG. 1
KURGANS
A. LENINSK
B. PYATIMARY

In the southern Ural region the burial grounds are clustered in specific localities. The principal graves are frequently very rich and contain items which have a greater value and are more varied. Large groups of kurgans such as those on the Ilek River may indicate that tribal union centers

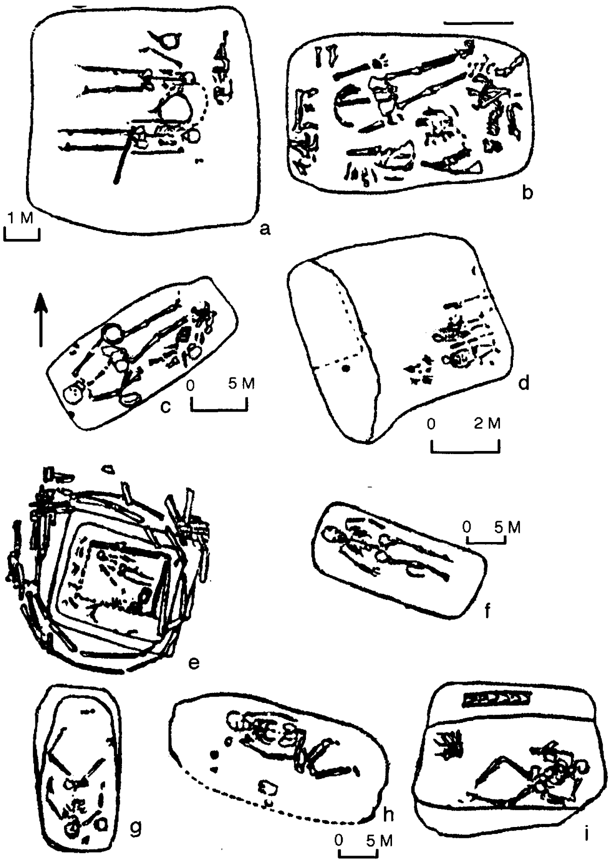


FIG. 2
BURIALS
A. SAZONKII BUGOR
B. SUSLY
C. SHULTZ
D. BLUMENFELD
E. TARA-BUTAK
F. TSELINNYI
G. KUMAK
H. UVAK
I. PYATIMARY

had formed. Complex burial structures illustrated by the Bis-Oba and Pyatimary kurgans were set apart from other burial mounds. These are also the richest graves belonging, undoubtedly to the aristocracy. This seems to indicate that a defined social stratification had developed for the nomadic society, a society which was only poised on the threshold of class formation.

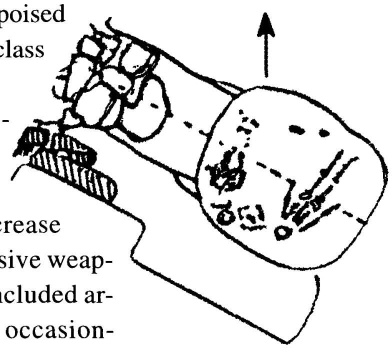


FIG. 3
BURIAL
PYATIMARY

The military-nomadic life of the steppe population is reflected in the increase of graves with offensive weapons. The weapons included arrows, swords, and occasionally spears. In the 7th-6th centuries B.C. the arrows were usually double-bladed, although bronze-cast trilobed Eurasian types are also known (Fig. 5). Beginning in the 6th century B.C. arrowheads appear that are characteristic of those used by the Sauromatian Culture (Fig. 5). The eastern tri-bladed and trilobed tanged arrowheads are essentially nonexistent among the Sauromatian finds until the 5th century B.C. The types of swords and daggers found in the nomadic burials located in the Volga-Don interfluvial and the southern Ural steppes are essentially the same as those used by the Scythians. The length of the swords and daggers varies from 25 to 125 cm (Fig. 6). They have a bar- or antenna-shaped pommel. Occasionally, the pommel is in the form of bird talons. The guard is heart-, butterfly-, or bud-shaped. Swords also have been found without pommels. The handles of some swords and daggers are decorated with open-work or animal style motifs which indicate a possible Siberian origin (Smirnov, 1961, p. 30). Other types of offensive weapons particularly spears are rare (Fig. 7). Occasionally, unusual types of armament such as spearheads (Fig. 8) or a battle-axe with a narrow blade and hammer-shaped butt have found been in the Sauromatian repertoire (Fig. 9). These weapons are characteristic of those found in the Kama River area and in Siberia. Graves belonging to the 5th-4th centuries B.C. military aristocracy occasionally have yielded remains of bronze helmets and scale and plate armor, all of non-local production. Sarmatian armor is similar to the Scythian armor (Smirnov, 1961, Fig. 42, 4; Zasetskaya, 1979, p. 94, Figs. 7-9).

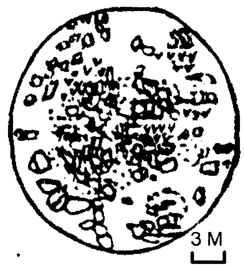


FIG. 4
BURIAL
ALANDSKOE

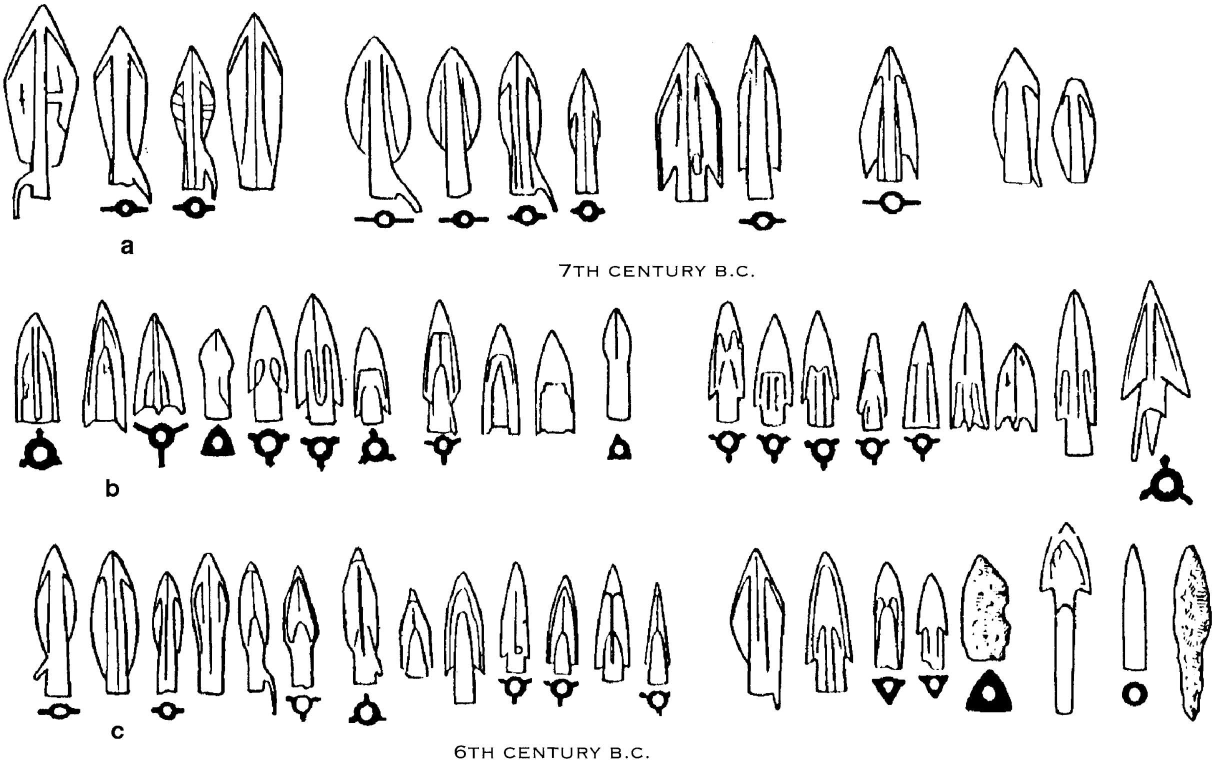


Fig. 5
Sauromatian and Early Sarmatian arrowheads

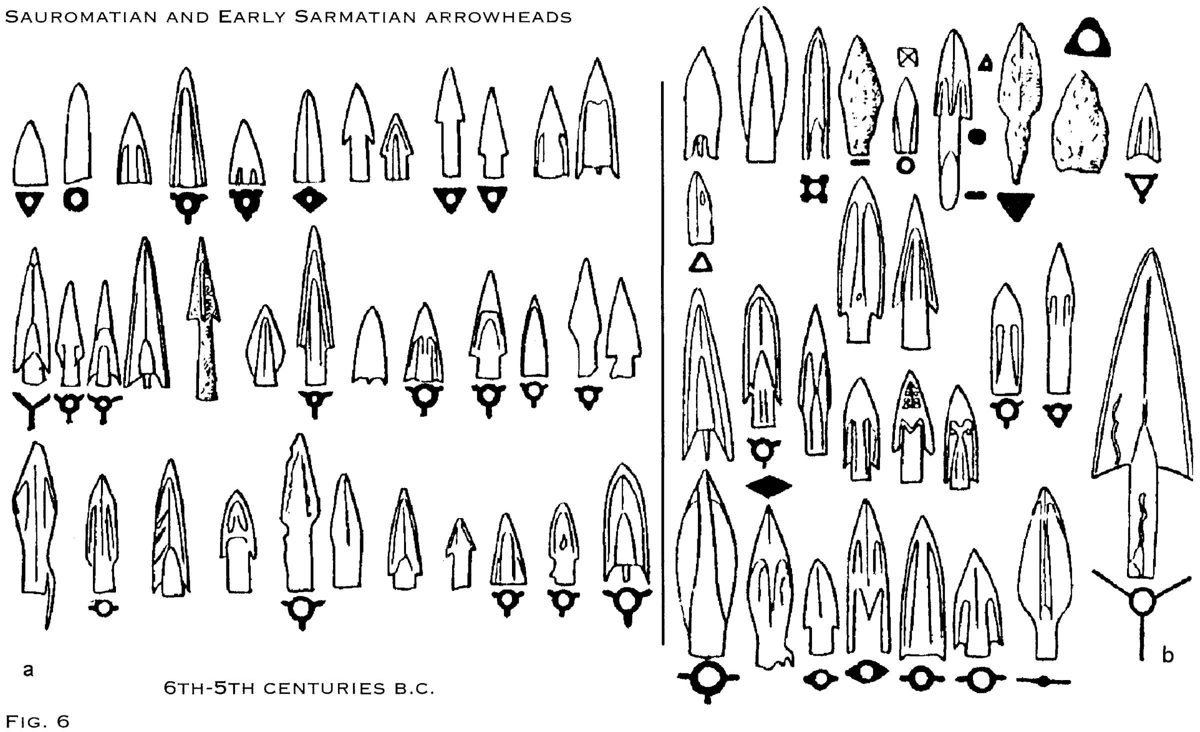


Fig. 6
Sauromatian and Early Sarmatian arrowheads

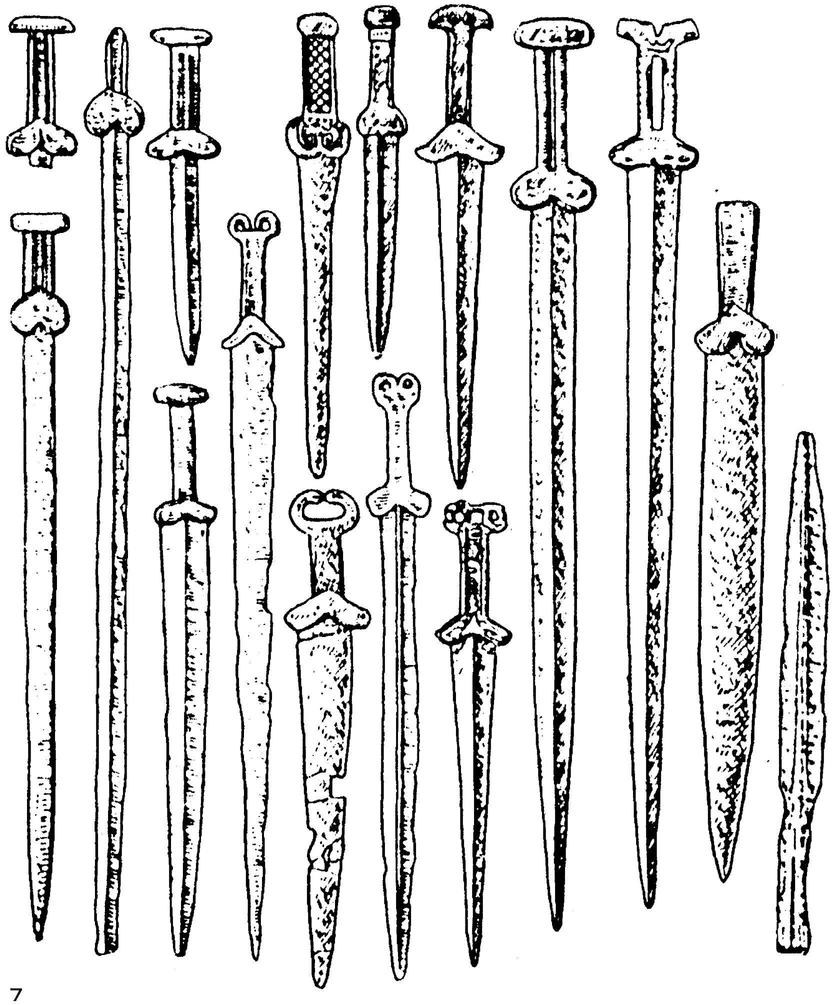


Fig. 7
Iron Swords

Bronze and iron hooks are a frequent attachment to the quivers. Occasionally the hooks are treated with animal style motifs (Fig. 10). Boar tusk amulets, usually with remarkable animal style carvings on the surface, played a propitious role. The tusks were found with quivers, swords, and bridle elements (Fig. 11). Horse accoutrements included psalia, mouth-bits, and horse harness components (Figs. 12-13). Both the mouth-bits and the psalia which are of the two-hole type usually are made of iron although an occasional bronze cast horse harness item has been found. Bronze and bone harness plaques, bronze and the occasional iron psalia are frequently ornamented with animal style depictions.

Components from 10 bridles from a cemetery located at Khosheutovo village in the lower Volga River region include particularly diverse psalia and cheekpieces. These date to the 5th century B.C. The stylization of the animal decorations reflect elements of Sauromatian and Scythian art.

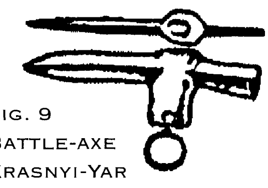


Fig. 9
Battle-axe
Krasnyi-Yar

Iron knives and whetstones are the most frequently found tools in the burials. Some knives have bone handles. The whetstones are round or rectangular in section, often cigar-shaped, and were cut from soft stone (Fig. 14). Additional finds include clay spindlewhorls, bronze and iron needles, awls, and flints for striking fire. A pair of farrier's tongs was also included in one burial (Fig. 15). From the middle of the 2nd millennium B.C. cauldrons made from riveted bronze strips and generally with hollow legs were found in burials belonging to sedentary steppe populations includ-

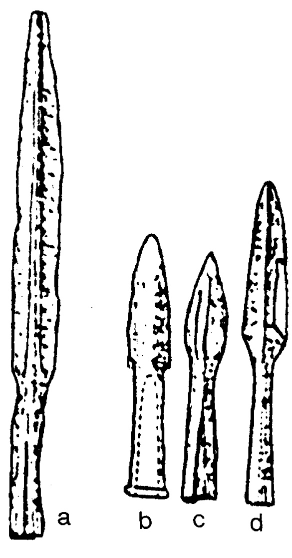


Fig. 8
Iron Spearheads

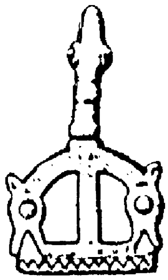


FIG. 10
BELT HOOK
ANIMAL STYLE
STARITZA KURGAN

ing those which were located in the Volga River region. Cauldrons used by the nomads were bronze cast and invariably had handles (Fig. 16). Although they became a characteristic element of the nomads' burial complex throughout the Sauromatian territory, the vessels seemed to have been used both in everyday life and for cultic ceremonies. Wooden vessels, frequently with additions of plated metal, and dishes carved from bone or horn were also widespread. Animal style depictions were carved on a bone bowl from Pyatimary I Cemetery and on a dish made from elk antler (Fig. 17). This ornamentation indicates the bowls may have been used in cultic ceremonies.

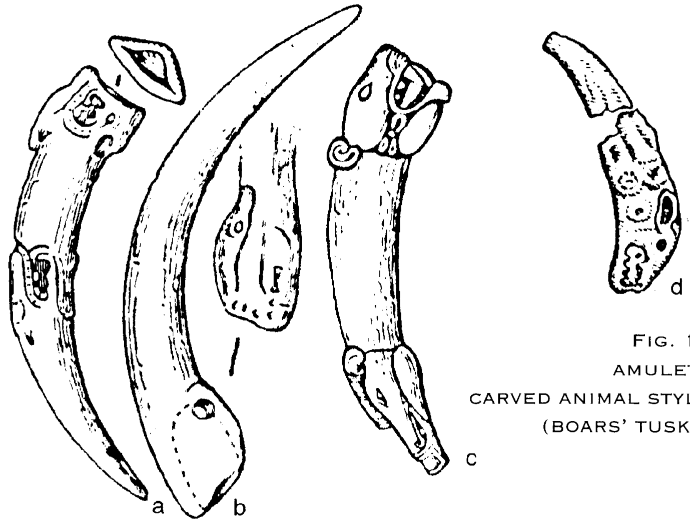
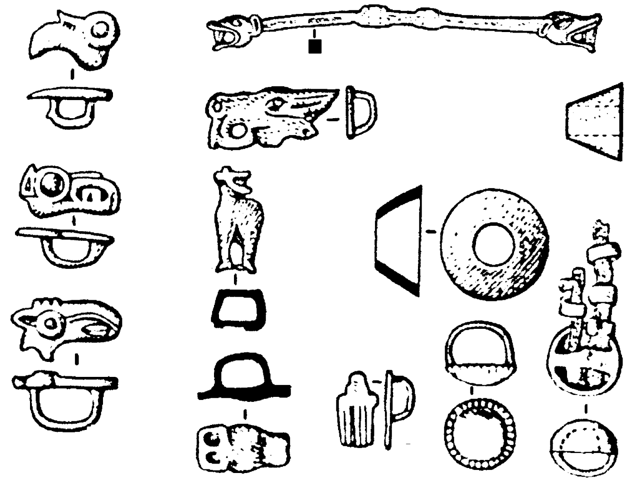
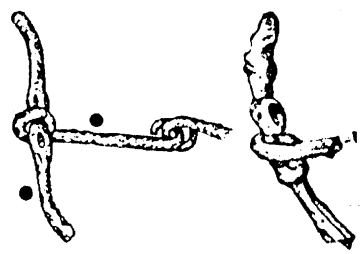


FIG. 11
AMULETS
CARVED ANIMAL STYLE
(BOARS' TUSKS)

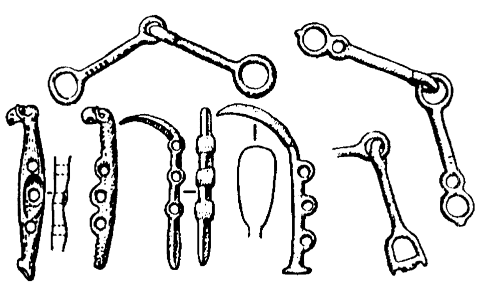


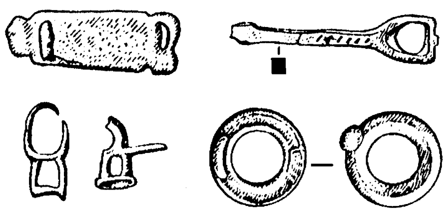
6TH-5TH CENTURIES B.C.



6TH-5TH CENTURIES B.C.

FIG. 12
SAURMATIAN AND
EARLY SARMATIAN
HORSE EQUIPMENT





7TH-6TH CENTURIES B.C.

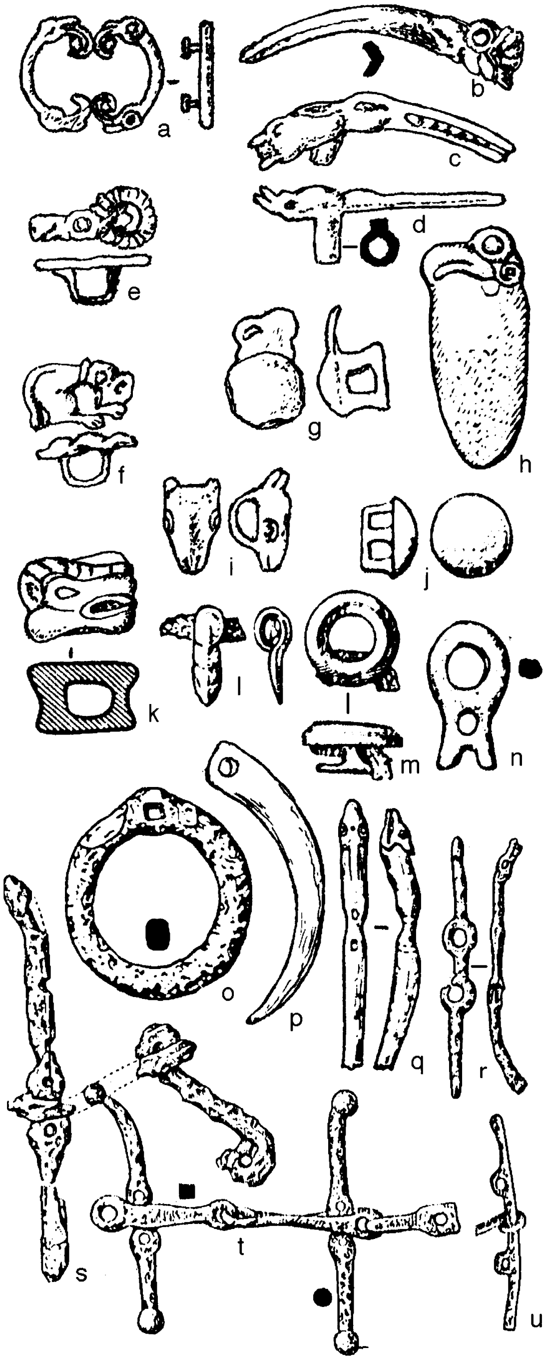


FIG. 13
HORSE TRAPPINGS
A-N. (BRONZE)
O, R-U. (IRON)
P-Q. (BONE)

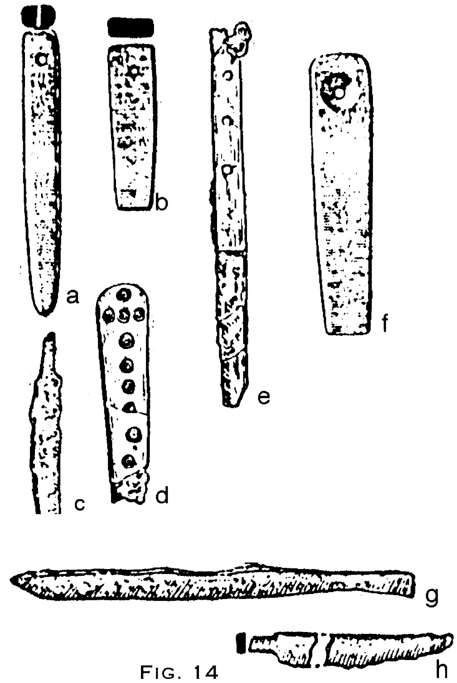


FIG. 14
TOOLS
A-B, F. WHETSTONES (STONE)
C-D, G-H. KNIVES (IRON)
E. KNIFE (BRONZE)

Clay vessels are the most common item found in all of the Sauromatian graves. They are generally made of coarse clay and may be egg-, ball-, or pot-shaped. Some are similar to Scythian steppe pottery. Other pottery vessels and their ornamentation, particularly the dents and dots, are a continuation of the Timber-Grave Culture style (Fig. 18). These vessel types are particularly frequent finds in the Volga River region. Throughout the entire Sauromatian territory jars with tubular spouts (Figs. 18e, 19) are well known. They obviously have descended from the clay jars of the preceding Transitional Period (Fig.



FIG. 15
FARRIER'S TONGS
LYBIMOVKA KURGAN
LAPASINA GROUP

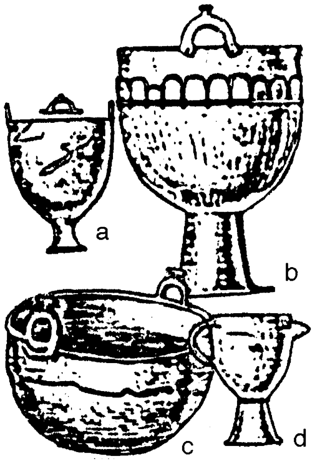


FIG. 16
BRONZE CAULDRONS FROM KURGANS
A. ZOLOTAYA KOSA
B, D. SOVOLEVSKAYA VOLOST
C. ZAPLAVNOE

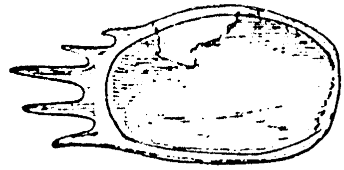
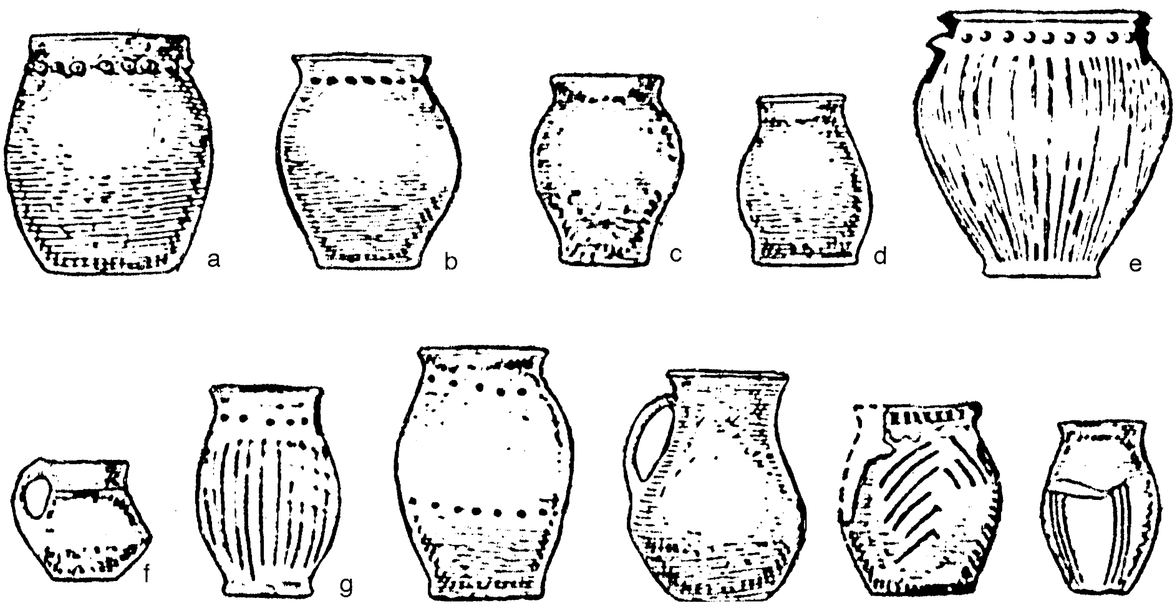


FIG. 17
CULTIC OR
TOILET ARTICLE
MECHET-SAI
ELK HORN

20). Slip covered and ornamented vessels found mainly in the Volga-Don interfluvial are a continuation of pre-Scythian pottery tradition. These compose a separate ceramic group. Many of these vessels were probably imports from the North Caucasus and possibly from the North Black Sea region. As early as the late 6th-5th centuries B.C., richly ornamented, round-bottomed vessels (Fig. 20) appeared in southern Ural steppes. By the beginning of the 4th century B.C. these vessels became the typical form of Early Sarmatian pottery.

Bone- and horn-carved spoons are the most common artifacts found in female burials. Invariably these items have been found among artifacts which are attributed to a "priestess" burial. The spoon handles are often decorated with animal style art (Fig. 21). It is probable that these artifacts were not toilet items but were used to perform ritual ceremonies (Smirnov, 1964, pp. 160-161). Mirrors used for everyday grooming also played an important role in the Sauromatian funeral ritual. Generally, the mirrors are a large flat disk or a disk with a high rim. They may either have a long, flat handle or handle in the form of a loop placed on the reverse side (Fig. 22). The mirrors with loop handles are similar to mirrors from Saka sites in the Aral

FIG. 18
SAUROMATIAN CERAMICS
TIMBER-GRAVE CULTURAL STYLES
VOLGA RIVER REGION



6TH-4TH CENTURIES B.C.

Sea region dating to the 7th-6th centuries B.C. They also parallel the rare Early Scythian mirrors. These "Olbian" mirrors belong to the 2nd half of the 6th century B.C. (Fig. 23).

Bracelets, rings, temple-pendants, head pins, earrings, and torques were used for personal adornment. Plaques were sewn on clothing. Although the objects are diverse they generally are simple in form. They were made from a variety of materials including gold, bronze, iron, bone, and stone. Particularly outstanding are the gold pendants in the form of a horseman on a chariot. The pendants came from a burial at the Sazonkin hillock in the lower Volga River region.

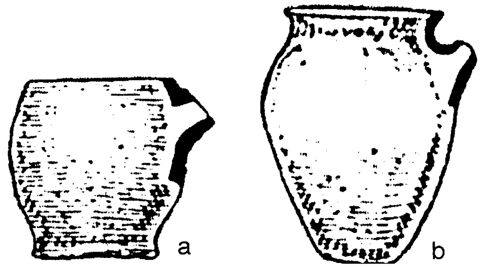


FIG. 19
SAUROMATIAN
SPOUTED WARE

Small portable altars carved from stone are characteristic finds in female burials belonging to the Samara-Ural Sauromatian Culture (Fig. 24). Occasionally they have also been found in the lower Volga River region (Fig. 25). The stone altars are diverse in form. They are often supported by two, three, or four legs, or by a cross-support. More than 70 portable altars are known from the eastern regions while about a dozen have been excavated from the more western sites. As evidenced

FIG. 20
SAUROMATIAN PERIOD CERAMICS
URAL REGION



6TH-4TH CENTURIES B.C.

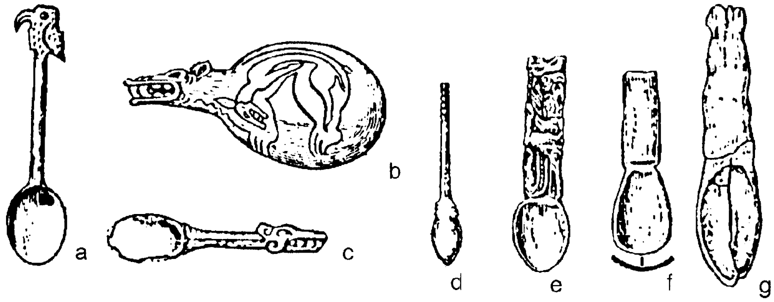


Fig. 21
Cultic or toilet articles
a, d. Pyatimary I
b. Bish-Oba
c. Sovolevskaya Volost
e. Syntas
f. Fzidenberg
g. Pokrovka
6th-5th centuries b.c.

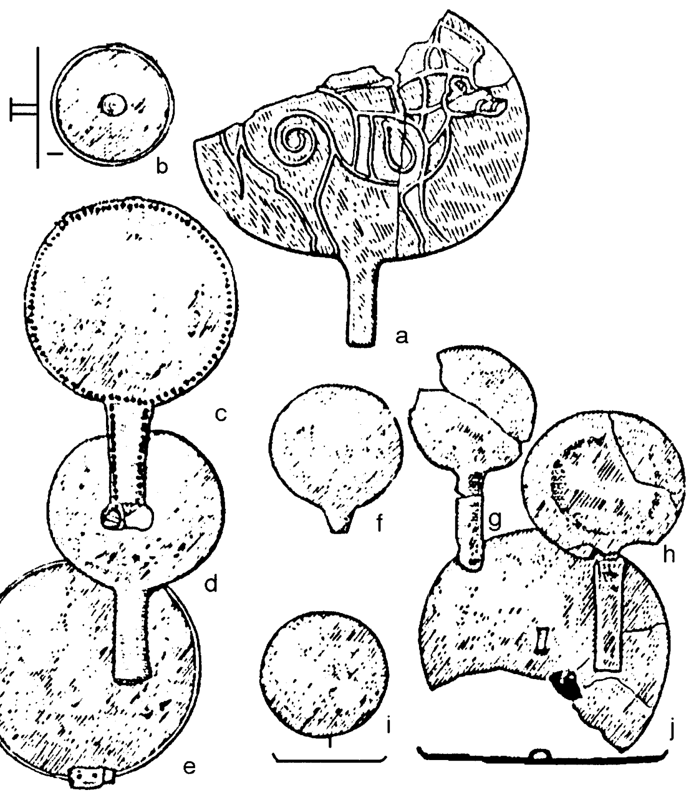


Fig. 22
Sauromatian
bronze mirrors

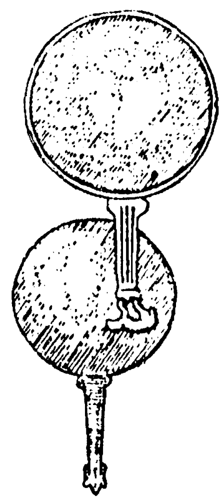
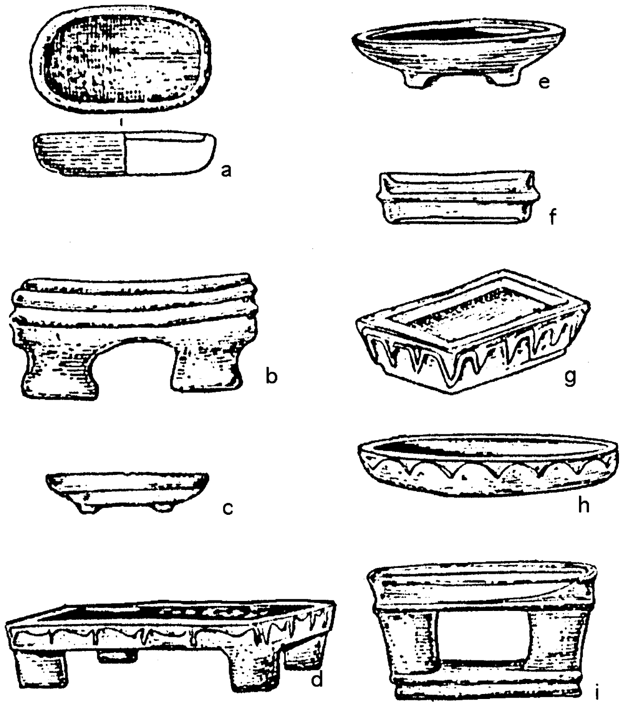


Fig. 23
"Olbian" mirrors
Andreevka and
Aksenovskii
Cemeteries



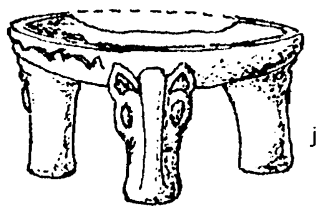


Fig. 24
portable altars
Samara-southern Ural steppe region
(stone)

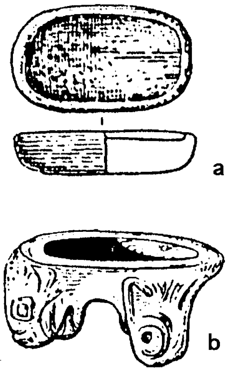
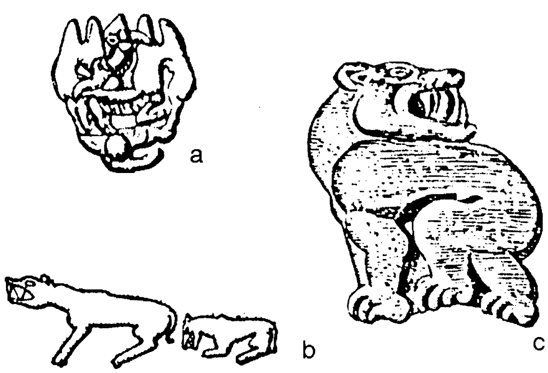


Fig. 25
Portable altars
lower Volga River region

by remaining fire marks, soot, and burned fat, the altars were used for fire cult rituals. In addition, red painted areas are often found on the surface of the altars.

At the beginning of the 6th century B.C., in the territory stretching from the Don River to the southern Ural steppes, a modification of the Scytho-Siberian animal style appeared (Smirnov, 1976, p. 74ff.) The animal depictions are similar both in style and in the specific animal depicted. The most common motifs are the wolf and bear although other animals such as the eagle-headed griffin are included. Many of the objects display polymorphism. Unlike animal motifs from other nomadic cultures Sauromatian zoomorphic art rarely incorporates scenes of fighting animals. Those that are known come mainly from burials

Fig. 26
Animal Style objects
southern Ural steppes



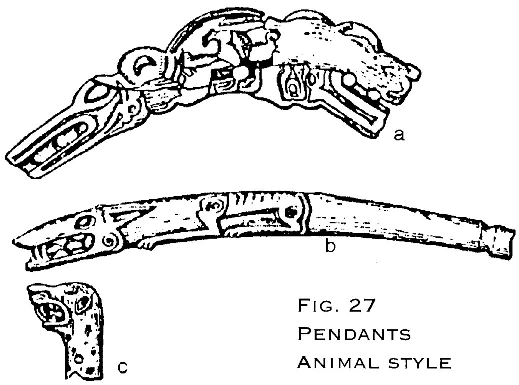


FIG. 27
PENDANTS
ANIMAL STYLE
(CARVED BONE)

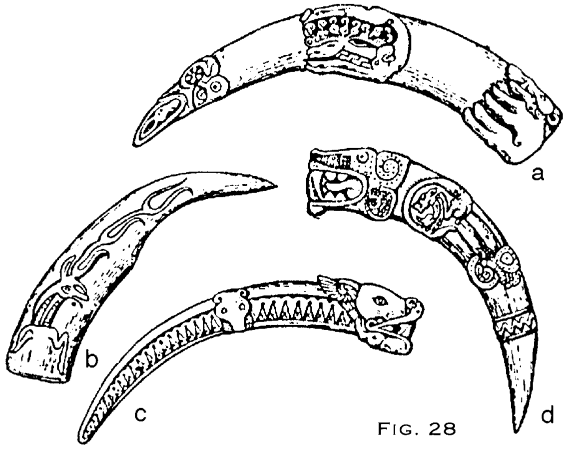


FIG. 28
PENDANTS
ANIMAL STYLE
(CARVED BONE)

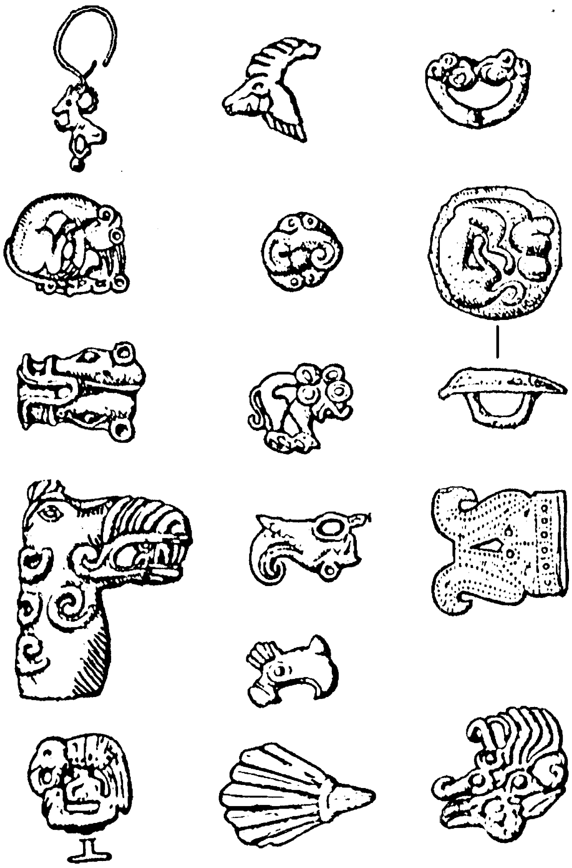


FIG. 29
SAUROMATIAN AND
EARLY SARMATIAN
ANIMAL STYLE

in the southern Ural region (Fig. 26). Typical Sauromatian zoomorphic renditions are carved from bone and horn (Figs. 27-28). Examples which display the best features of the Volga River region animal style variant are on fang pendants from the Blumenfeld and Privolnij kurgans (Fig. 30). The animal style modification from the burials in the southern Ural steppes displays a greater versatility than those from the Volga River region (Figs. 30-31). The versatility is found in the selection of animals, in their stylization, and in the portrayal of their posture. The animal style found in the southern Ural steppes style is also closely related to the Saka-Massagetae animal style (Smirnov, 1976, p. 87) (See the subsequent section "The Saka in Central Asia").

As with other nomads the Sauromatians viewed the depictions of animals or even the depiction of animal parts as having magical powers. Because the depictions embodied the ascribed qualities of the depicted animal, they were protective amu-

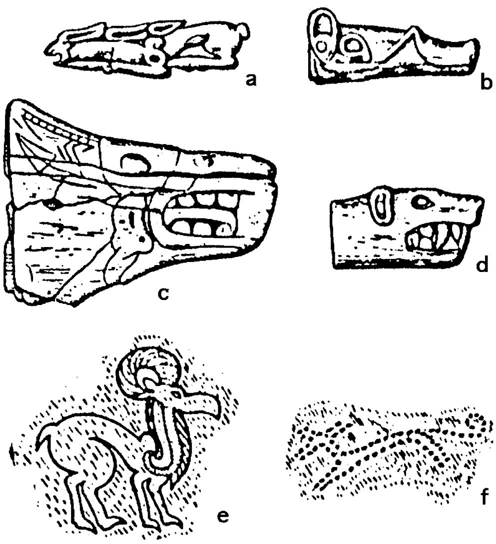


FIG. 30
ANIMAL STYLE

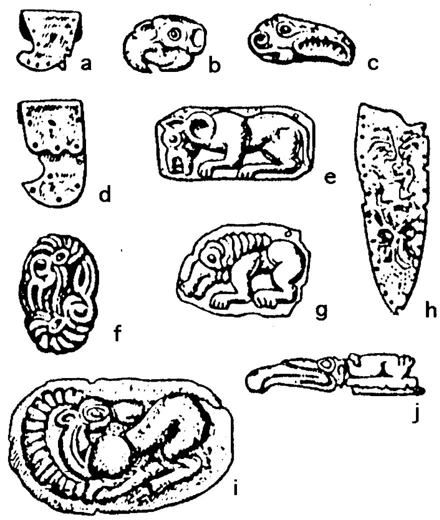


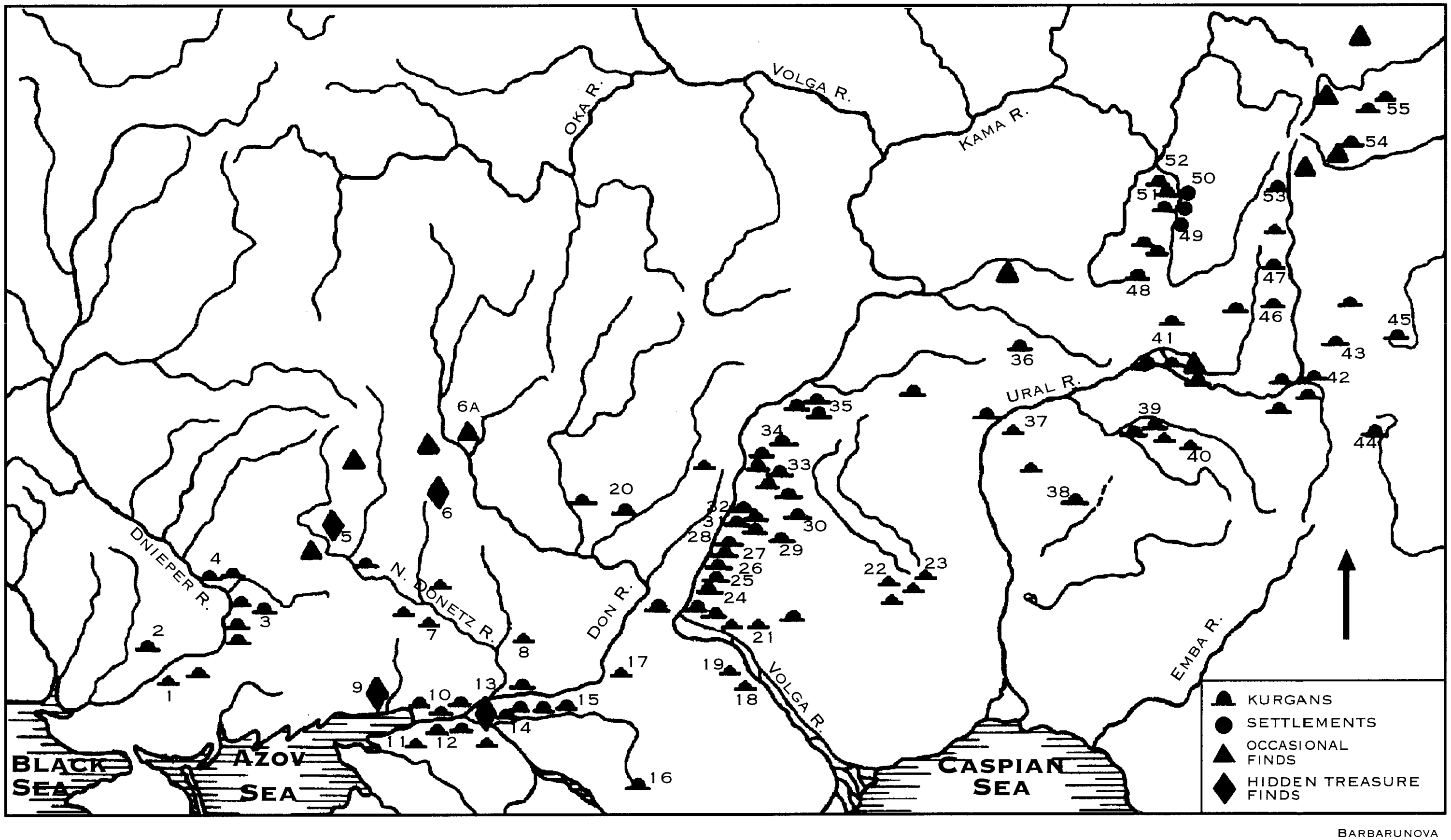
FIG. 31
DECORATIVE OBJECTS
ANIMAL STYLE

lets. The depiction imparted the vigorous qualities of the beast represented to the one who wore the plaque. Animal style art objects were used to decorate all items connected with nomadic military, religious, or cultic aspects of life. Because artifacts decorated with animal style depictions were found most frequently in burials of the military aristocracy, bodyguard warriors, and priestesses, these objects are also considered to be items of prestige, enhancing the nomadic social hierarchial position.

Monuments of Early Sarmatian Culture

1 - Ushkalka
2 - Grushevka
3 - Bulakhovka
4 - Verkhnyaya Maevka
5 - Balakleya
6 - Klimenkovka
6a - Antipovka
7 - Aleksandrovsk
8 - Sladkovskii
9 - Taganrogskii klad
10 - Novocherkassk
11 - Vysochino
12 - Koisug
13 - Fedulovskii klad
14 - Balabinskii
15 - Popov
16 - Bichkin-Buluk
17 - Aksenovskii
18 - Krivaya Luka
19 - Staritsa
20 - Sidory
21 - Zhurov kurgan
22 - Kara Obe
23 - Kurpe-Bai
24 - Verkhne-Pogromnoe
25 - Kalinovka
26 - Novo-Nikol'skoe
27 - Bykovo I, II
28 - Politotdel'skoe I, II
29 - Shultz
30 - Al't-Vaimar
31 - Berezhnovka I
32 - Berezhnovka II
33 - Vizenmiller
34 - Usatovo
35 - Boaro
36 - Lyubimovka
37 - Barbastau
38 - Lebedevka
39 - Bliznetsy
40 - Mechet-Sai
41 - Alebastrova gora
42 - Novii Kumak
43 - Bai-Dzhigit
44 - Buruktal
45 - Prirechnii
46 - Sibai I
47 - Al'mukhametovo
48 - Prokhorovka
49 - Tabynskoe
50 - Kurmantaevskoe
51 - Bishungarovo
52 - Starie Kiishki
53 - Murakaevo
54 - Kochkar'
55 - Isakovskii.

Key to Map 6. Monuments of the Early Sarmatian Culture



Map 6. Monuments of the Early Sarmatian Culture

CHAPTER 8

EARLY SARMATIAN CULTURE

ZOYA A. BARBARUNOVA

During the late 5th and early 4th centuries B.C. the Early Sarmatian Culture, also known as the archaeological Prokhorovskaya Culture, came about in the southern Ural steppes. Developed on the basis of the southern Uralian Sauromatian Culture, new innovations defined this cultural transition. The Early Sarmatian Culture most probably developed as a result of the influx of populations from the forest-steppe trans-Urals, northwestern Kazakhstan, and possibly from the Aral Sea region (Smirnov, 1964, 1975; Moshkova, 1963, 1974). The cultural formation was slow and uneven throughout the southern Urals. Within both classical Sauromatian and Early Sarmatian burials new achievements in cultural artifacts have been excavated. Two southern Uralian centers that belonged to the Early Sarmatian nomadic community are noted at archaeological sites located along the Ilek and Or' rivers. Here, among the burial artifacts, new innovations appear. Subsequently, the innovations were developed into cultural traditions. Some of the new burial traits include side niches (*podbois*), catacombs, grave pits with ledges, and the southern orientation of the deceased. Prominent among the mortuary food offerings is a mutton shoulder blade with the attached foreleg. Funerary artifacts also vary from those found in earlier Sauromatian burials. New types of swords, bronze mirrors, and decorations now appear. The Sauromatian style pottery underwent significant changes. Tribes from the trans-Ural steppes brought new techniques for pottery manufacturing, including the mixing of talc into the paste. New forms such as round-bottomed pots and uniquely rich ornamental motifs were incorporated into the Sarmatian pottery style.

Extensive cattle breeding and an increase in population throughout the southern Ural steppes provided stimuli for the Sarmatian western migration from this region (Zhelezchikov, 1983, pp. 57-58). In the 4th century B.C. individual Sarmatian groups penetrated into the lower Volga River region. During this time the area was inhabited by roaming tribes that carried dominant Sauromatian cultural traits. For some time the Sauromatians and the Sarmatians appeared to have coexisted as illustrated by the burial artifacts from two cemeteries. The graves of one located near Kalinovka village yielded predominately Sauromatian archaeological cultural traits, while those from the neighboring cemetery, Novonikolskii I, present a graphic complex of Early Sarmatian Culture (Barbarunova, 1989, p. 57). During the 4th-3rd and the 3rd-2nd centuries B.C. massive nomadic migrations westward from the southern Ural steppes reached the lower Don River and Kuban River regions (Map 6). In addition, other migrations eastward to the mid-Ishim region and southward to the Zeravshan

Basin resulted in a near-abandonment of the southern Ural steppes by the 1st century B.C. During the westward migration the nomads gradually lost many precise traits that had identified them as southern Uralian tribes. These included the richly ornamented talc pottery, graves with dromos, burials with complex superstructures, and some weapon types.

By the 3rd-2nd century B.C. the Early Sarmatian Culture of the lower Volga River differed significantly from the archaeological complex predominant in the south Uralian area. The lower Don and Kuban archaeological sites dating to the late 3rd-2nd century B.C showed even more significant changes than those in the southern Ural Early Sarmatian sites. The cultural distinctions in each of the three regions is attributed to both indigenous traditions and foreign influences. In addition, economic ties, political orientation, and geographic conditions all played significant roles in the specific development. However, when compared to the Sauromatian Culture, the Early Sarmatian Culture is characterized by a greater unity and stability in burial traditions as well as a greater standardization of artifacts found in burials. These unifying traits seem to indicate definitive changes in the nomadic socio-political order. Increased consolidation of Sarmatian tribal unions created a power structure which intervened actively with the political situations on the northern coasts of the Black Sea.

More than 1000 graves of Early Sarmatian culture, all found under kurgans, have been excavated. The smaller kurgans were arranged in groups generally around one or two larger kurgans or were placed in linear sequence along river terraces. Particularly in the southern Urals, some mounds were constructed specifically for a single burial. In other situations burials were placed in the then-old kurgans and the earthen mound was subsequently raised higher. Primarily during the 4th-3rd centuries B.C. several types of stone mounds, including those with platforms, cromlechs, and stone heaps were constructed. Each of these burial types may be considered a continuation of the Sauromatian tradition. Two burial systems were incorporated in the kurgans. In some kurgans 1 to 3 graves were arranged unsystematically. In others 3 to 10 or sometimes 10 to 20 graves were placed concentrically around an "ancestor" grave. Occasionally, the concentrical arrangement would be made up of parallel graves. Kurgans containing concentrically arranged graves were probably used by specific kin groups (Fig. 1).

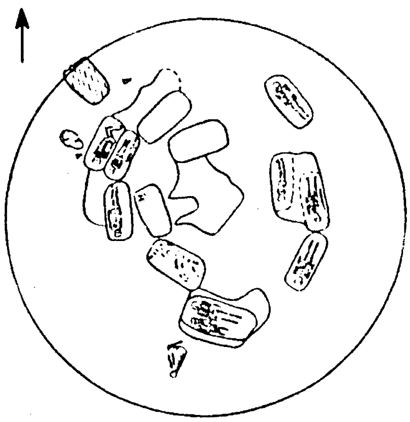


FIG. 1
MECHET-SAI

A characteristic feature of previous Sauromatian burials transmitted to the Early Sarmatian Period was the diversity of grave types. This diversity was found not only within a given cemetery but even within a single kurgan. Almost all burial constructions used in the Early Sarmatian Period were known to have existed during the Sauromatian time period. During the earlier Sauromatian period the burial types appeared in different proportions than they did during the later part of the period. Quadrangular pits of medium width are characteristic for all Early Sarmatian Period burials as well as for those in Sauromatian burials (Fig. 2). At the beginning of the Early Sarmatian Period, primarily in the southern Ural area, spacious, square subsoil pits containing complex wooden structures were still used. The structures often have pyramidal or gabled roofs. These usually are the burials of high ranking Sarmatians. From the 2nd half of the 5th century B C. and into the 4th century B.C. in the southern Urals, and slightly later during the 4th century B.C. in the Volga River and lower Don River regions, occasional spacious rectangular grave pits were constructed with a long inclining dromos leading into the chamber. These kurgans were repeatedly used to bury members of one family. Up to 8 skeletons have been reported in one mound.[1] In the southern

Ural steppes in the 5th century B.C. spacious chamber graves with *podboi* niches arranged along one of the long sides of the entrance pit (Fig. 3) and the occasional catacomb burial are also found (Fig. 4). These burials are attributed to the Sarmatian culture. By the 4th-2nd centuries B.C. the *podboi* burial was not only typical but was widespread over the entire territory occupied by the Early Sarmatians. Grave pits with ledges placed either along both sides or placed around the perimeter are known throughout the entire territory. The principal pit usually was placed in the center of the kurgan. The dead were buried in this pit with weapons (Fig. 5).

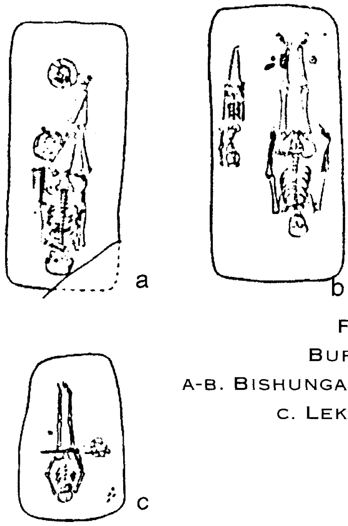


FIG. 2
BURIALS
A-B. BISHUNGAROVO
C. LEKANDY

Structures placed in the graves were most frequently made from boards, logs, or poles. They had flat ceilings of the same material. The interior walls were sometimes covered with bark, reeds, or cane. In other cases, the walls were faced with wooden planks or bark. The floors were covered with planks, bark, or reeds. Generally, the mouth of a niche or catacomb chamber was closed with either boards, vertical poles driven into the ground, or suspended mats. Occasionally the grave was closed with stone slabs or filled with stone rubble.

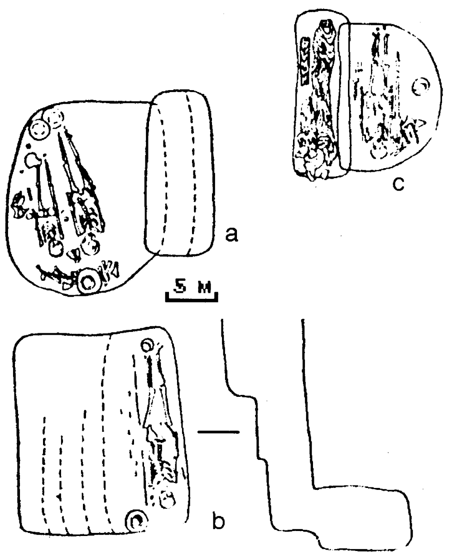


FIG. 3
BURIALS
A. USATOVA
B. ALT VAIMAR
C. LUBIMOVKA

Generally the deceased were placed in supine position, arms and legs extended with one or both wrists laying on or under the pelvis. The legs may be crossed at the shins or the feet tied together (Figs. 2-6). Only rarely were the deceased placed in prone positions or on their sides. In an overwhelming majority of cases the dead were buried with their heads orientated south.[2] Deviations are found, however, particularly in those kurgans where graves had been arranged concentrically around the central burial. Occasionally both eastern and western orientation have been noted in the same kurgan. Only rarely has northern orientation been encountered. This occurred mainly in the lower Volga River and lower Don River regions. In general, burials were single, but in some cases, multiple burials containing from 3 to 8 skeletons have been excavated. In these cases the dead were placed in tombs through a dromos. There may have been simultaneous burials occurring over a period of time.

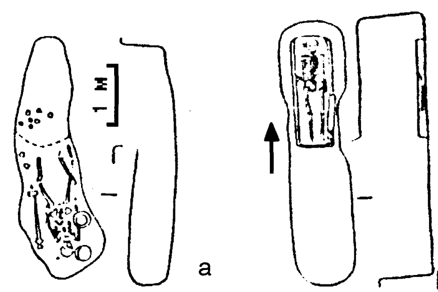


FIG. 4
BURIALS
A. NOVO NIKOLSKOE
B. MECHET-SAI

The dead buried in Sarmatian tombs were placed on mats or covered with mats made from organic materials. In rich graves the covers were embellished with multiple beads or decorative plaques made from precious metals. For the first time Sarmatians began placing the dead on funeral stretchers made of wooden planks, bark, or poles. Sometimes they removed the wheels[3] from their chariots and the dead were lowered into the burial chamber on the vehicle. The wheels were placed next to

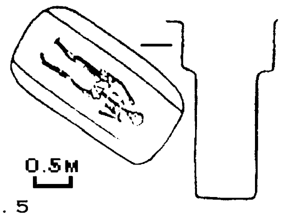


FIG. 5
BURIAL
POLITOTDELSKOE

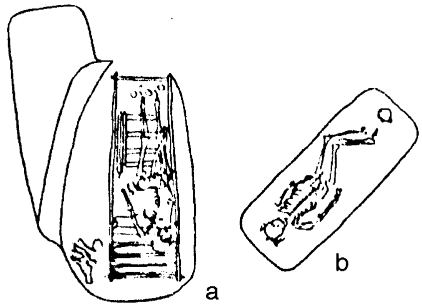


FIG. 6
BURIALS
A. USATOVA
B. BEREZHNOVKA

the deceased or on the roof of the grave pit. Latticed coffins constructed from wooden planks or poles were also used in the burial ritual (Fig. 6a-7). Logs were hollowed and were made into sarcophagi.

As in the previous period, especially in the southern Ural steppes, the nomadic burial ritual involved cultic fire. This is evidenced by the remains of carbonized wood and ashes found at the edges of the graves as ash lens charcoal spots on the floor or charcoal pieces found on the skeleton. Powdered yellow ochre or chalk was also sprinkled over the skeleton and funeral bed. Another component of these mysterious burial rites consisted of adding chunks of chalk, gypsum, red and yellow ochre, shells, and pebbles to the grave offerings. Hammer-shaped "thunder" tools sometimes placed in a vessel were also found in the burials (Fig. 8). Some women's and children's graves yielded stylized anthropomorphic figurines carved from chalk or alabaster (Fig. 9).

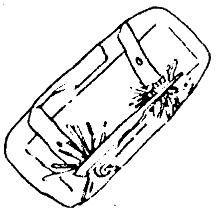


FIG. 7
BURIAL
MAKAROVKA

During the Sarmatian Period elements of Sauromatian cultic rituals also survived. Although not a frequent occurrence, female graves in the southern Urals dating to the 4th century B.C. have yielded small portable altars in the form of round or oval stone dishes embellished with relief carvings on the rim (Fig. 10). In the 3rd-2nd centuries B.C. these vessels were replaced throughout the Early Sarmatian territory by stone or clay censers (Fig. 11). The latter were also occasionally included in male burials. The ancient tradition of burying women with arrowheads and, less frequently, a sword still survived as a rudimentary cultic practice. During this period, the composition of funerary food changed. The dead were now accompanied by rams' forelegs and shoulder blades. Some graves contained up to four such fore-quarters indicating that at least two animals had been sacrificed for the burial ceremony. Funerary gifts of one to three vessels often containing food offerings were also placed at the head or feet of the deceased.

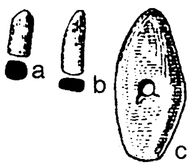


FIG. 8
CULTIC OFFERINGS

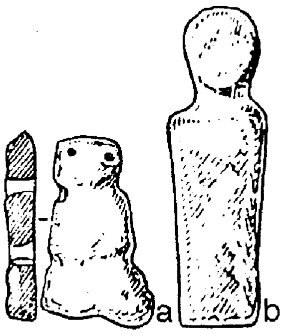


FIG. 9
CHALK CULTIC
FIGURINES
A. ALEKSANDROVSK
B. ZAPLAVNOE

Male graves usually contained a set of weapons which included a sword or dagger and a quiver with arrows. Within the Volga-Don interfluvium and the lower Don River complexes, the weapon assortment also included a spearhead or javelin-head (Figs. 12, 14). The infrequent rich nomadic grave yielded a complete set of heavy arms including a long sword, a dagger, a quiver with arrows, a spear, a helmet, a cuirass, and armor (Figs. 12-14). In the 4th century B.C. transitional styled swords appeared in the southern Ural steppe burials. The guard on the sword was either at an obtuse angle or it was arch-shaped. Pommels were bar-

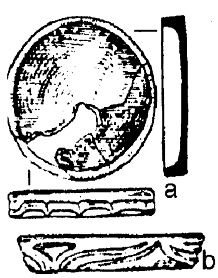


FIG. 10
PORTABLE ALTARS
A. NOVYI KUMAK
B. ORENBURG

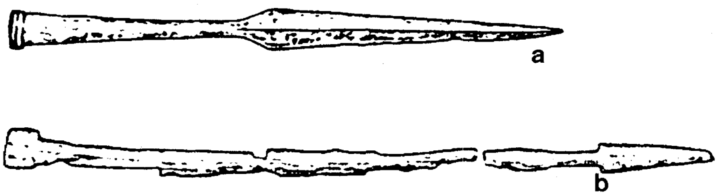


Fig. 12
Sword and javelin
a. Kbashino
b. Staritza

shaped or slightly curved (Fig. 15). These were found with the Scythian akinakes (Fig. 16). The classical Sarmatian sword of this period had a bar-shaped guard and a crescent-shaped pommel. Less frequently, the pommel was straight (Fig. 14 a-d). Short swords measured between 40-55 cm while the long swords measured about 130 cm. Sometimes swords and daggers were found which had bar-shaped pommel and no guard (Fig. 14e). These are of the Sindo-Meotian type. In the 4th-3rd centuries B.C. hollow-shafted trilobed bronze arrowheads were the prevalent type found (Fig. 13 a-c, e). In the 3rd-2nd centuries B.C. iron trilobed tanged arrowheads became more numerous (Fig. 13d). Over time some differences are noted in the assortment of arrowheads. For example, in the Volga River and lower Don River regions in the 2nd century B.C., trilobed tanged arrowheads were predominant. In the pre-Caucasus steppes and in the Kuban River depression, hollow-shafted iron arrowheads were found in burials as late as the 1st century B.C. (Fig. 13e1). The arrow shafts

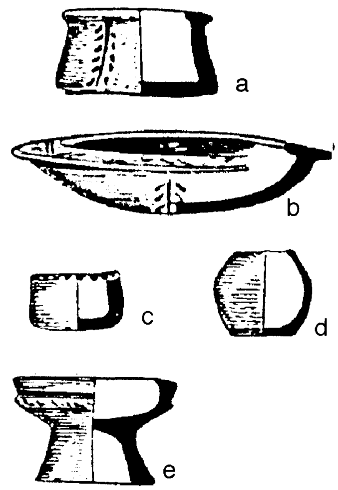
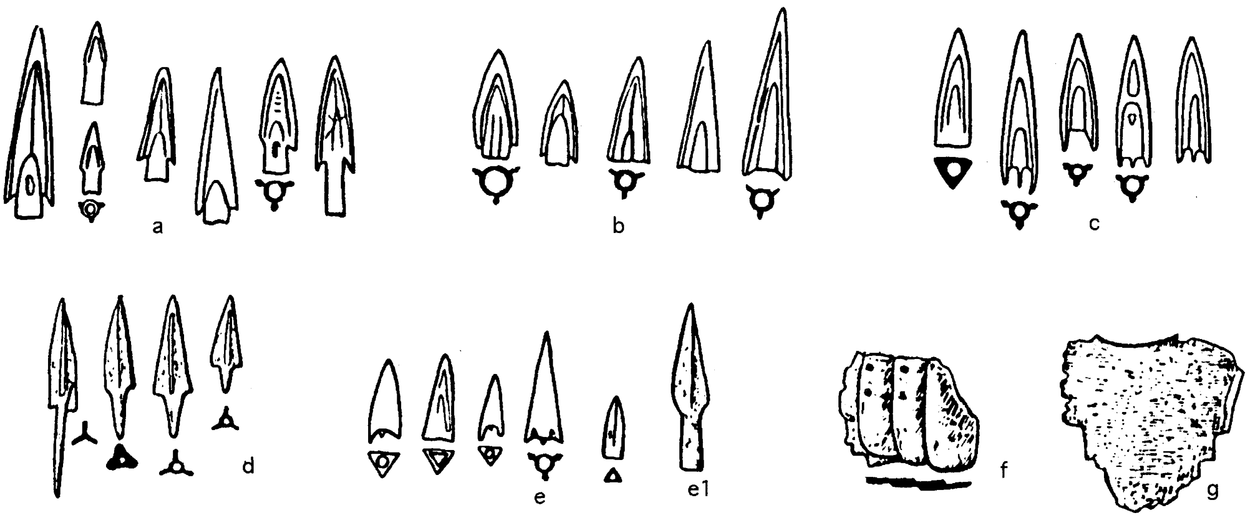


Fig. 11
Clay censers
a, e. Starye Kiishki
b. Bishungarovo
c. 15th settlement
d. Bokovy



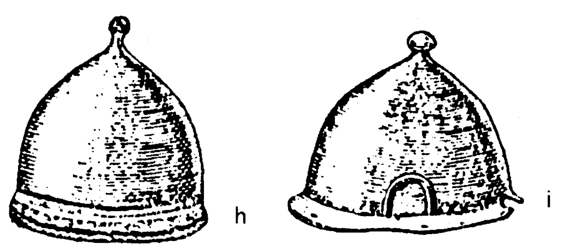


Fig. 13
a-e. Arrowheads (bronze)
f, g. Armor (iron)
h, i. Helmets (bronze)
h. Novo Prokhorovka

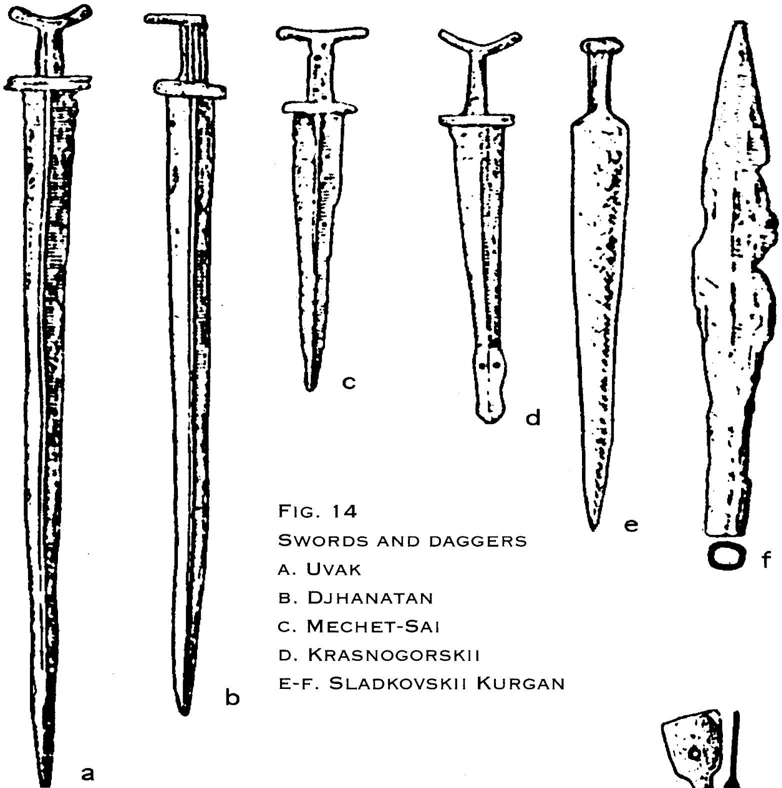


Fig. 14
Swords and daggers
a. Uvak
b. Djhanatan
c. Mechet-Sai
d. Krasnogorskii
e-f. Sladkovskii Kurgan

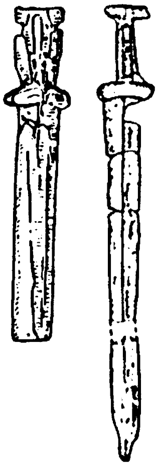


Fig. 15
Swords (iron)
Saikhin and Buruktal

were painted a crimson color. The quivers were frequently attached to the belt or to the sword belt with special hooks of bronze or iron[4] (Fig. 18).

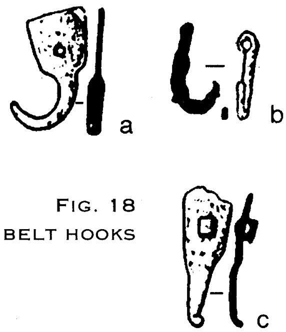


Fig. 18
Iron belt hooks

Horse harnesses were not frequently found. Complete bridle sets were characteristically included in the 4th-3rd centuries B.C. burials. They included iron and bronze bits (Fig. 19) and psalia (Fig. 20) carved out of bone (Fig. 21). The latter are characteristic only of the 4th century B.C. Bronze buckles and pendants were also found with horse harnesses (Fig. 22). Slightly later ordinary burials yielded only bridle bits. Isolated burials of rich horsemen dating from the late 3rd to the 1st century B.C. were scattered across the steppes from the Ural Mountains to the Dnieper River. The burials frequently yielded splendid sets of harnesses. Phalera made from silver or bronze covered with silver or gold and decorated with floral motifs or mythological scenes were included (Fig. 23).



Fig. 16
Sword (iron)
State Farm
"Dema"

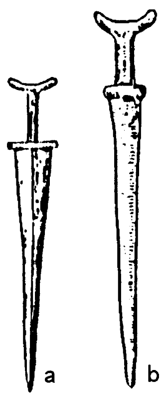


Fig. 17
Swords (iron)
a. Kurmantau
b. Kalinovka

Tools were found in both male and female burials. In the male burials knives, whetstones, and less frequently, iron axes and celt-adzes were found. In female burials knives, clay spindlewhorls, awls and needles made from stone, bone, bronze, or iron (Fig. 24, 25) were

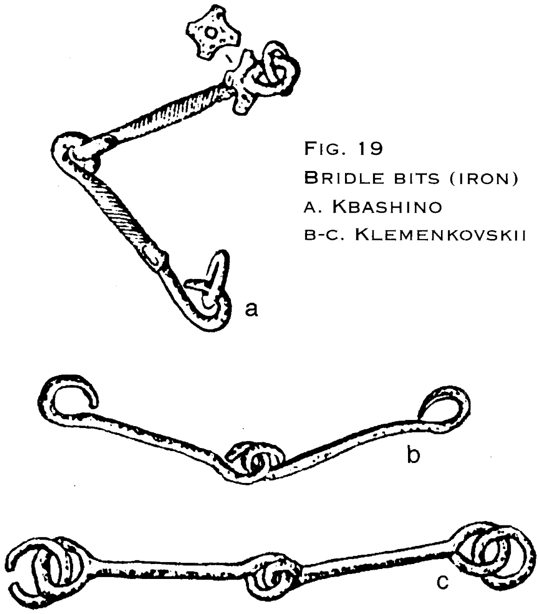


FIG. 19
BRIDLE BITS (IRON)
A. KBASHINO
B-C. KLEMENKOVSKII

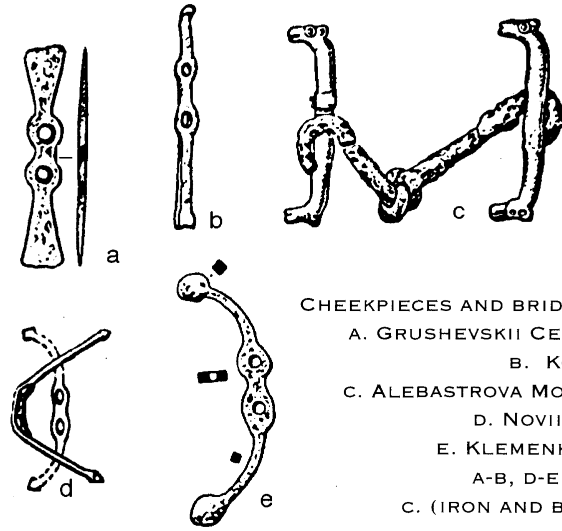


FIG. 20
CHEEKPIECES AND BRIDLE BITS
A. GRUSHEVSKII CEMETERY
B. KOCHKAR
C. ALEBASTROVA MOUNTAIN
D. NOVII KUMAK
E. KLEMENKOVSKII.
A-B, D-E. (IRON)
C. (IRON AND BRONZE)



FIG. 21
PSALIA
(BONE)

included. Personal ornaments were usually found in female burials. These included huge quantities of beads made into necklaces. Beads were also sewn on as clothing and footwear ornamentation. A Sarmatian woman was ornamented with temple rings, earrings, and finger rings. Less frequently bracelets and torques made from silver or bronze sheathed with silver or gold foil were included in the burials (Fig. 26). Women's toilet sets included bronze mirrors of the Early Sarmatian types, generally with a thickened edge. Often items such as small spoons, combs with handles carved from bone, shells with remnants of rouge, and small clay vessels were part of the toilet articles (Fig. 27). Bronze, silver and gold pendants, amulets made from coral, and shells were among grave offerings. Occasionally, harness rings were also included in female burials. The clothing of rich men and women was adorned with

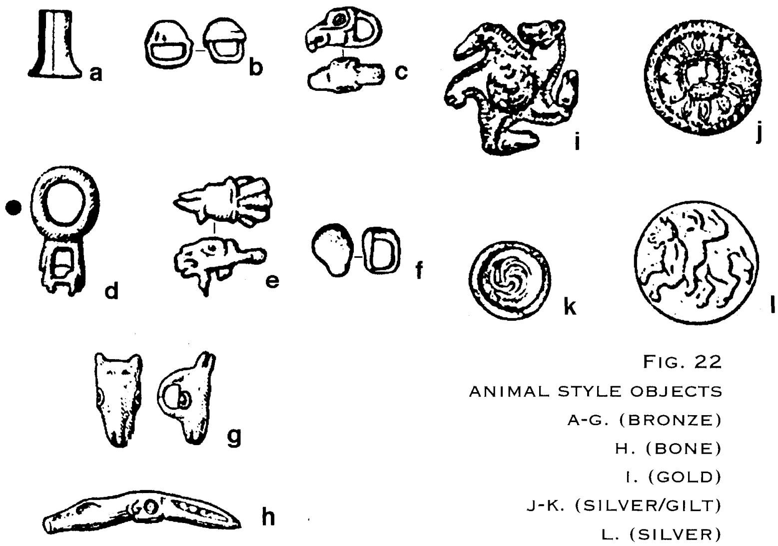


FIG. 22
ANIMAL STYLE OBJECTS
A-G. (BRONZE)
H. (BONE)
I. (GOLD)
J-K. (SILVER/GILT)
L. (SILVER)



FIG. 23
PHALERA
STAROBELSK
(SILVER/GILT)

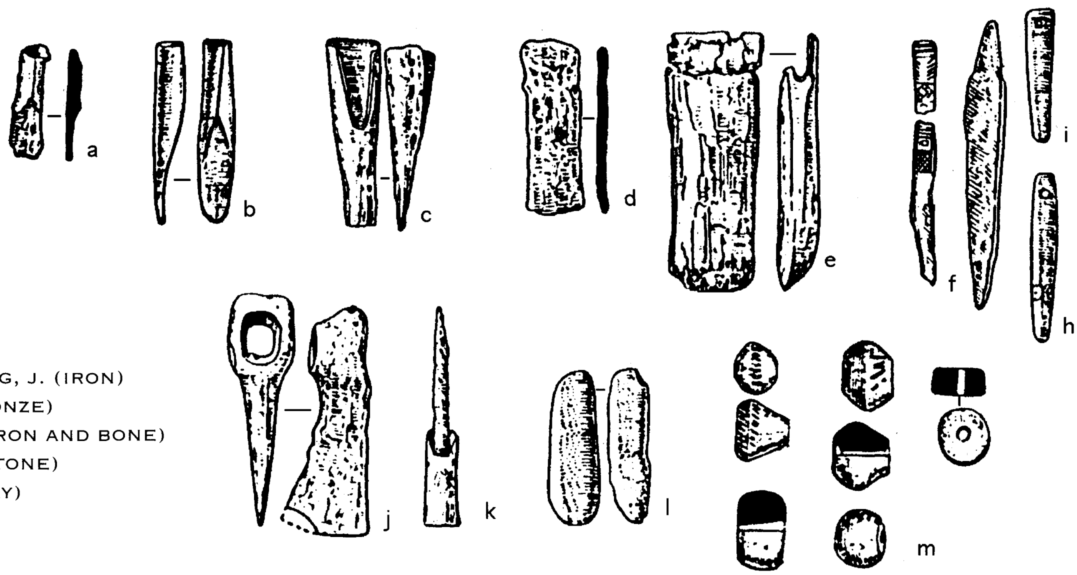


FIG. 24
TOOLS
A, C-E, G, J. (IRON)
B. (BRONZE)
F, K. (IRON AND BONE)
I, L. (STONE)
M. (CLAY)

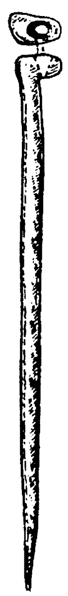


FIG. 25
BONE AWL

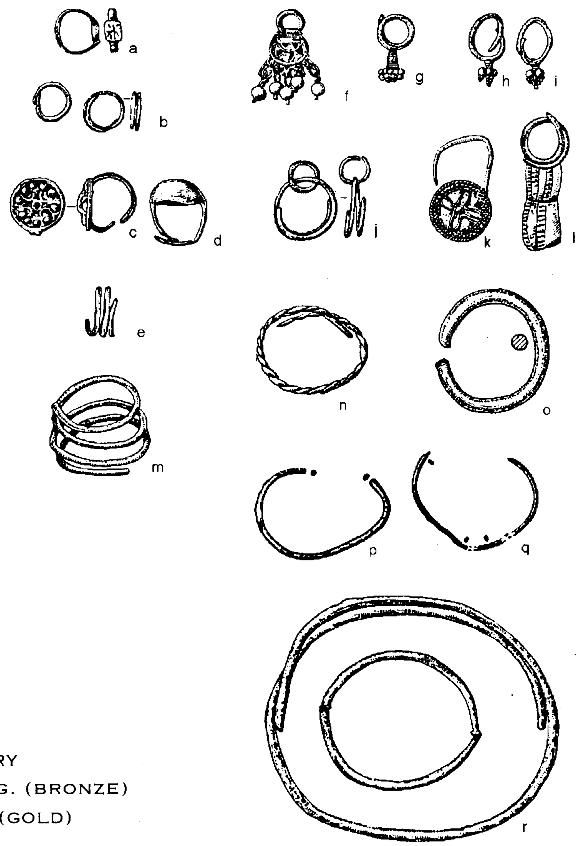
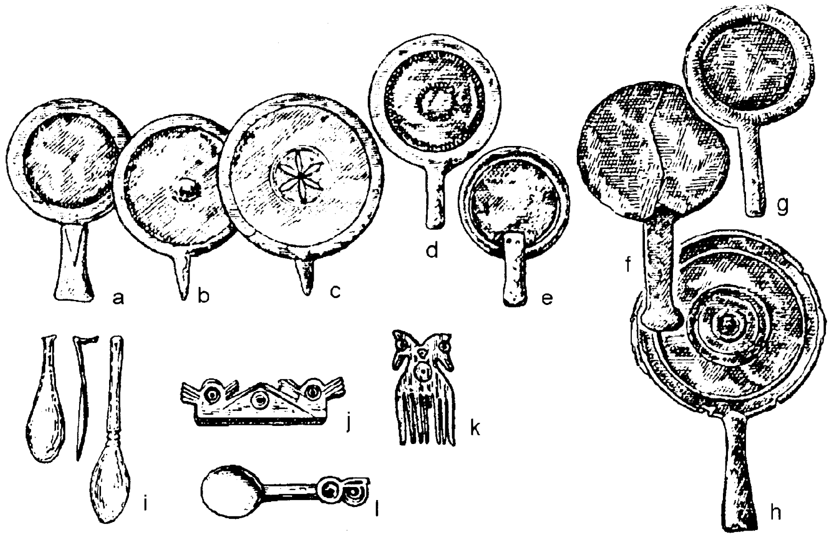


FIG. 26
JEWELRY
A-B, M-G. (BRONZE)
C-L, R. (GOLD)

gold and silver plaques (Fig. 28). Bronze, bone, or iron buckles were constructed with an unarticulated tongue (Fig. 29). The occasional rectangular buckle, which was elaborated with open-work ornamentation in the form of an animal figure, was used to fastened clothing (Fig. 29 e-f).

Bronze cast cauldrons, very similar to those used by the Scythians (Fig. 30) and hand-modelled and wheel-thrown pottery vessels were common artifacts included in the nomadic Sarmatian complexes. Wheel-thrown pottery was imported from production centers located in the lower Don River region and the Kuban River region. To a lesser extent, fine pottery was imported from the North Caucasus and the cities of the Bosporus. Some vessels found in southern Ural burials were imports from Central Asia. Although the 4th century B.C. local hand-modelled pots preserved many Sauromatian traditions they were also subjected to strong influences from the pottery producing centers of the forest-steppe trans-Uralian region. This was especially true in the lower Volga River area. Predominant features of the

FIG. 27
A-H. MIRRORS (BRONZE)
I, L. SPOONS (BONE)
J-K. COMBS (BONE)
A, D. STARYE KIISHKI
B. ZAPLAVNOE
C. VERKHNE POGROMNOE
E. MOLCHANOVKA
F. BASHKIRSKOE
G. BOGOLYBOVKA
H. MALOKIZYLSKII
I. KALINOVKA, ZAPLAVNOYE
J. BISHUNGAROVO
K. STARYE KIISHKI
L. LYBIMOVKA



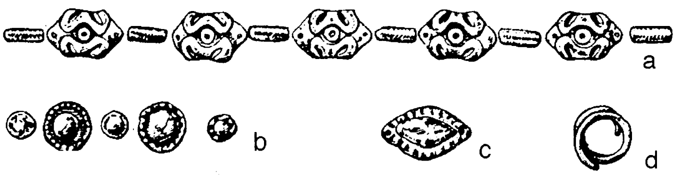


FIG. 28
JEWELRY
A-B. 15TH SETTLEMENT (GOLD)
C-D. USATOVO (GOLD, BRONZE)

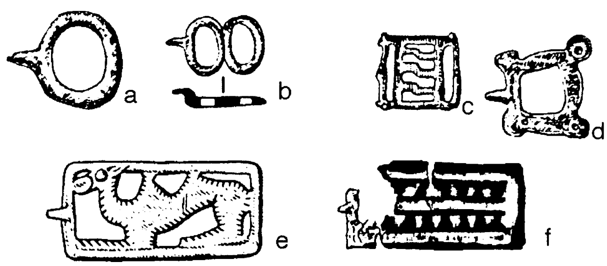


FIG. 29
BUCKLES
A. KARA-OBA
B. STARYE KIISHKI
C. MECHET-SAI
D. USATOVO,
E. TESELY
F. KHARKOVKA
A. (IRON)
D. (BONE)
B-C, E-F. (BRONZE)

FIG. 30
BRONZE CAULDRONS
A. ALITUB
B. PYATIMARY I

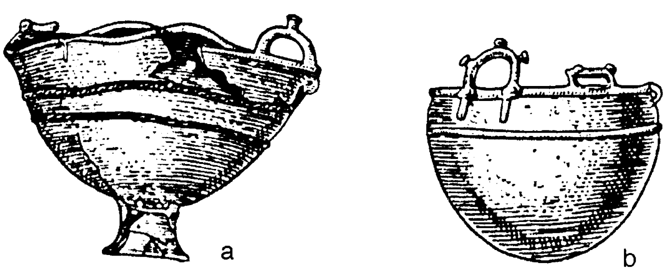




FIG. 31
EARLY SARMATIAN POTTERY
FROM THE URAL STEPPES

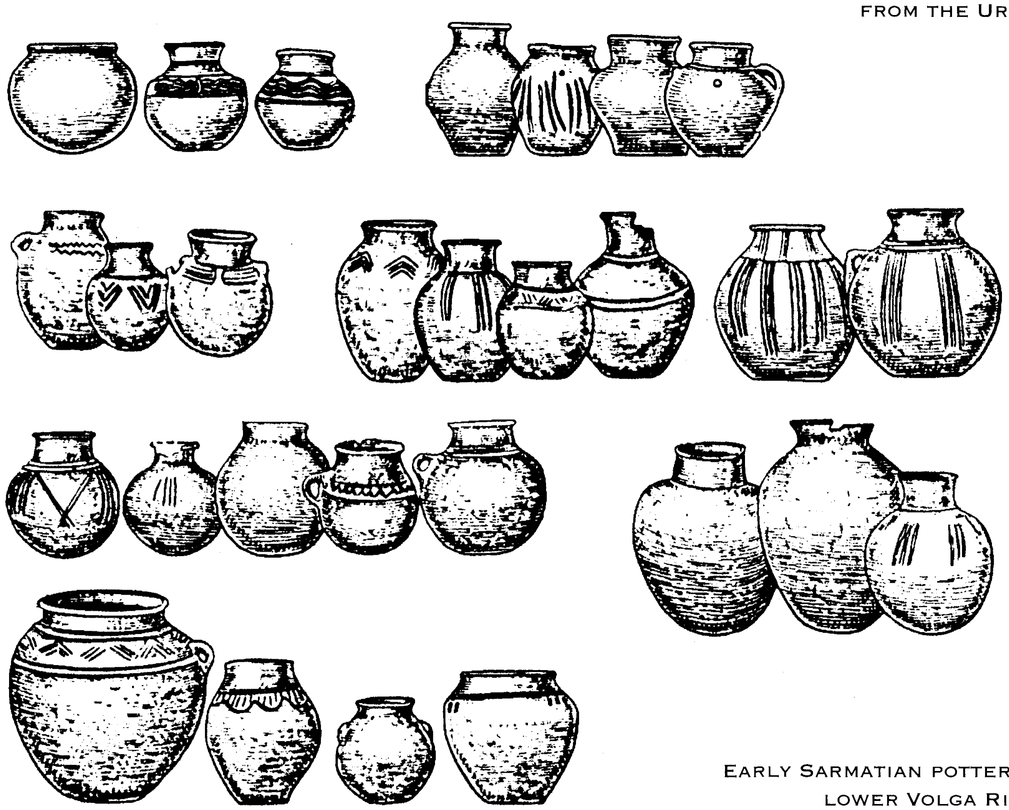


FIG. 32
EARLY SARMATIAN POTTERY FROM THE
LOWER VOLGA RIVER REGION

Uralian hand-modelled pottery are round bottoms and a paste with added talc. Ornamentation is rich and varied (Fig. 31). None of these traits were predominant in the pottery from the lower Volga River region (Fig. 32).

During the Early Sarmatian Period animal style ornamentation began to gradually die out. However, some articles from the southern Ural steppes and the Volga River region were decorated with schematic zoomorphic motifs (Fig. 33).



FIG. 33
SCHEMATICIZED ANIMAL STYLE OBJECTS
A-D. (CARVED BONE)
E. (BRONZE)

Notes

Chapter 8

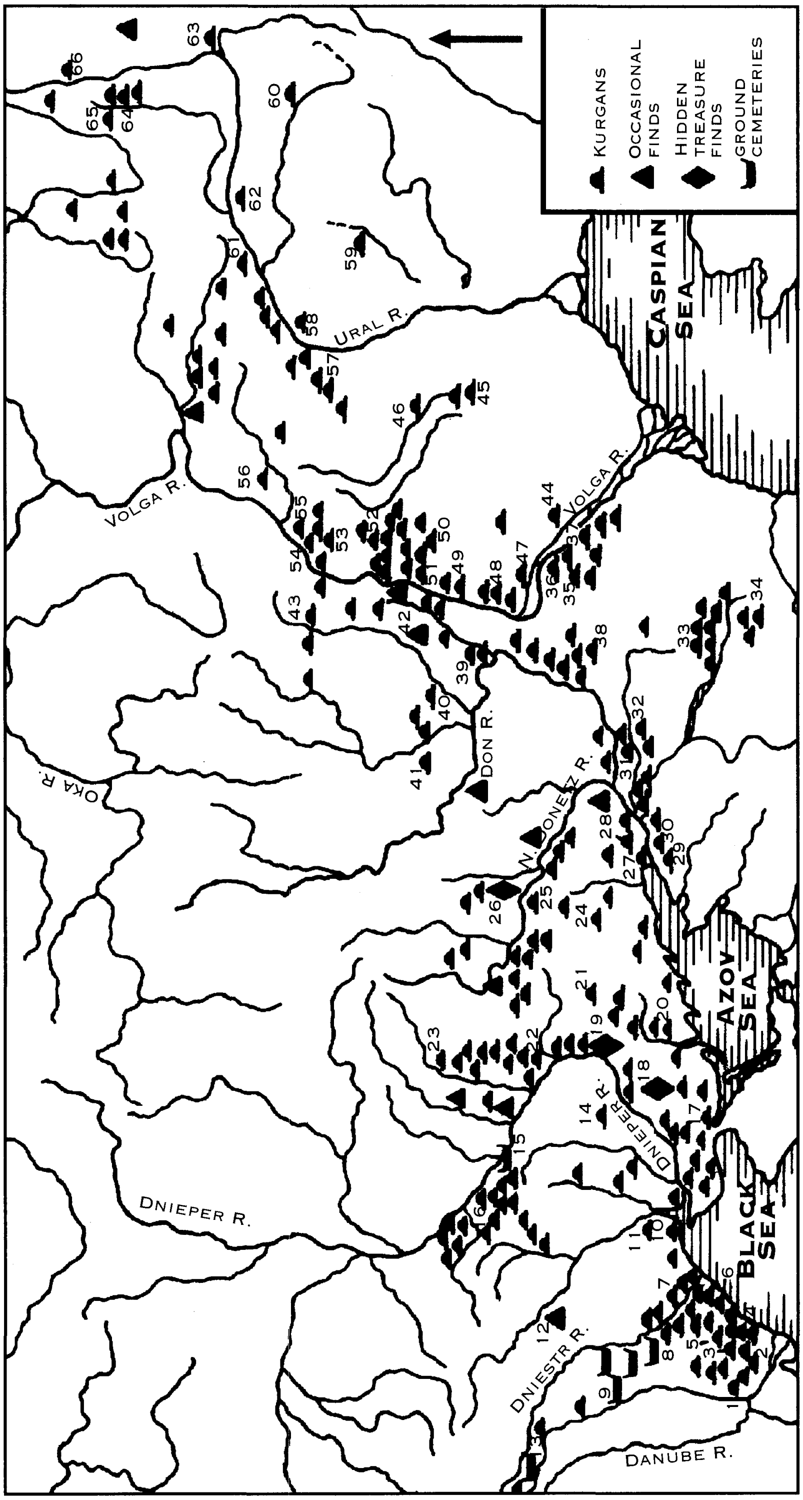
Early Sarmatian Culture

1. In this anthology references to kurgans, burials, and artifacts from Pokrovka are chance finds excavated around 1911 by peasants living in the area. Formal joint Russian-American archaeological excavations began at Pokrovka in 1992 and were the first scientific documentation of the Sauro-Sarmatians in this locale. During the 1993 excavations at Pokrovka, 12 skeletons were excavated from one pit which was reentered through a dromos (Pokrovka 2, Kurgan 23, Burial 10). The excavations are published in Russian in *Kurgany lebobepezhnogo Ileka,* Moscow 1994, pp. 51-54 and in English in *Kurgans on the Left Bank of the Ilek: Excavations at Pokrovka* (Russia) 1990-1992, Berkeley, 1995. (Ed. note)
2. At Pokrovka the Early Sarmatian burials are also orientated S, SW and WSW. (Ed. note)
3. Which were similar to those found at Pazyryk.
4. Quiver hook. (Ed. note)

Monuments of Middle Sarmatian and Late Sarmatian Culture

1 - Krinichnoe
2 - Kamenka
3 - Kholmskoe
4 - Primorskoe
5 - Bashtanovka
6 - Katarzha
7 - Nadlimannoe
8 - Oloneshty
9 - Bokany
10 - Parutino
11 - Sokolova Mogila
12 - Trayany
13 - Ostrovets
14 - Ust'-Kamenka
15 - Kolontaevka
16 - Konstantinovka
17 - Privol'noe
18 - Verkhnie Serogozy
19 - Yanchokrak
20 - Novo-Filippovka, Akkermen'
21 - Bogodar
22 - Podgorodnoe
23 - Bititsa
24 - Makeevka
25 - Pereezdnaya
26 - Starobel'skii klad
27 - Rostov-on-Don, Kruglii Kurgan
28 - Sadovii, Khokhlach
29 - Vysochino
30 - Koisug
31 - Chetyre brata [Four Brothers]
32 - Novii
33 - Tri brata [Three Brothers]
34 - Vostochnii Manych
35 - Baranovka
36 - Staritsa
37 - Krivaya Luka
38 - Zhutovo
39 - Yutaevka
40 - Sidory
41 - Nekhaevka
42 - Kotovka
43 - Yershovka
44 - Nizhnii Baskunchak
45 - Kysyk-Kamys, Kos-Oba
46 - Karasu
47 - Leninsk
48 - Kalinovka I, II
52 - Khar'kovka
53 - Krutoyarovka
54 - Susly
55 - Boaro
56 - Usatovo
57 - Shipovo
58 - Barbastau
59 - Lebedevka
60 - Ul'ke
61 - Gerasimovka
62 - Bis-Oba
63 - Dzhanatan
64 - Kara-Tal
65 - Temyasovo
66 - Agapovskii
67 - Lekandy
68 - Bereznyaki
69 - Andreevka
70 - Lipovka.

Key to Map 7. Monuments of the Middle and Late Sarmatian Cultures



Moshkova

Map 7. Monuments of the Middle and Late Sarmatian Cultures

CHAPTER 9

MIDDLE SARMATIAN CULTURE

MARINA G. MOSHKOVA

The sites of Middle Sarmatian Culture are known throughout the steppes of Eurasia from the Danube River to the southern Ural steppes (Map 7). This territory covers almost twice the initial Sauro-Sarmatians habitation region, an area stretching from the Don River to the Southern Ural Mountains. Although this archaeological cultural formation took place in the Volga-Don river regions, the nomads of the southern Ural steppes also participated in the process. It is possible to see regular, although insignificant, inclusions of the cultural remains from undetermined eastern nomads in the archaeological materials from the nomadic population who occupied the Trans-Volga region. Possibly these nomads came from the southern Ural steppe region or from Central Asia. The evidence of their presence appeared in materials from excavated sites of the Volga-Ural interfluvial (Barbastau, Kos-Oba, and Karasu sites).

It was the nomads who lived between the Volga and Don rivers who laid down the foundations for the Middle Sarmatian archaeological culture. Some burial rite features and forms which they implemented changed gradually within the Early Sarmatian complex. Middle Sarmatian implements received their final form only at the end of the 1st century B.C. The period between the late 2nd and the late 1st century B.C. is considered to be transitional. The accumulation of innovations was exceptionally gradual but led to qualitative changes within the whole archaeological complex.

During the Middle Sarmatian Period, the entire territory, with the exception of the southern Ural area, was favorable to the Sarmatian social development. According to some scholars, the southern Ural area was affected by deteriorating climatic conditions. Other scholars think that the nomads did not stay in the area and migrated west and southeast. In either case, a sharp decrease in population occurred in the region at this time. It seems that both factors were instrumental in Sarmatian social development.

The inhabitants of the other Sarmatian regions flourished in all spheres of their socioeconomic life. After becoming masters of the northern Black Sea steppes, the Sarmatians lived in proximity to the antique production centers. They kept the city dwellers gripped with fear while goods from the sedentary centers flowed to the nomadic aristocracy.

Even though the Middle Sarmatian culture, composed of closely related tribes, was widespread from the Ural steppes to the Danube River, it was not uniformly organized throughout. This was especially true after they conquered the northern Black Sea steppes. The Sarmatian hordes in-

corporated some Scythian groups and became neighbors of the sedentary populations living to the north and south. These developments were responsible for the appearance of certain cultural differences between large regions such as the southern Ural steppe, the Trans-Volga River, and the Volga-Don river regions as compared with the North Black Sea region. Cultural traits are particularly noticeable in burial customs and the local modelled pottery from each region. Studies of materials such as the pottery reveal, on the one hand, general unity of the Middle Sarmatian archaeological culture and, on the other, the originality of each region. The originality is a reflection of the fact that in the Eurasian steppes several large tribal communities or unions existed. In spite of the similarities present in each material culture the unions had their own developmental history. The history was conditioned by both internal and external forces such as old local roots, symbiotic relationships with surrounding sedentary populations, cultural ties, and specific trade relations.

As in the previous cultures the archaeological material of the Middle Sarmatian Period is represented only by material from their burial grounds. The general trend over the entire Sarmatian territory was for a gradual increase in the number of kurgans containing a single burial. Although the southern Ural steppes had always been particularly rich in such kurgans by the beginning of the 1st century A.D. a single burial in a kurgan was found throughout Sarmatian territory. East of the Don River, Middle Sarmatian kurgans are generally found within cemeteries dating from the 6th century B.C. to the 4th century A.D. It is only from the late 1st century B.C. to the early 1st century A.D. that Sarmatian burials were the majority of those found in the North Black Sea region. Previously, Sarmatian kurgans were found in cemeteries intermingled with kurgans dating to the Bronze Age. Along the right bank of the Dnieper River in the forest-steppe zone occasional isolated 1st century A.D. Sarmatian cemeteries have been discovered at Kalantayevskii in Cherkasskaya *oblast* (region) and Ostrovets in the Dniester River area.

Middle Sarmatian burials of the Prokhorovo Culture are characterized by the same dominant southern orientation of the deceased with occasional deviations (Fig. 1). The bottom of the grave and, occasionally the dead, were covered with pieces of chalk. Individual cemeteries differ quantitatively in this respect. In general this trait becomes rarer. Although there are occasional paired or collective burials the graves usually contain individual burials. Collective burials usually contain the skeleton of a woman and skeletons of children (Fig. 1b). As in the Prokhorovo Period, meat offerings, usually a ram's leg and shoulder blade, were included for the journey of the deceased. Wood was used in a similar manner in the grave pit, forming the ceiling of the burial. In larger square graves a wooden frame was often placed on the floor or wood was used to face the walls. Coffins and funeral stretchers are seldom excavated. Cultic fires are minimal compared to the preceding period although occasional evidence of fire pits is sometimes recorded in only the richest graves.

The types of sepulchres found are the same as those found from the previous period. Burials with niches along one side, narrow earthen graves, medium and wide pits, and pits with ledges are still found (Fig. 1 a, c, d, h; Fig. 2). Almost no catacomb burials are found. The proportional relationship between the types of burials changes and cemeteries can differ radically. From the late 2nd century B.C. the percentage of graves with ledges remains almost constant, averaging 2.5 to 4% but ranging from 2.6 to 17%. During this time the proportionate number of graves in burial mounds grows smaller. Beginning in the 1st century A.D. a sharp decrease is recorded in the number of graves discovered with niches.

As in the previous period, medium-wide and narrow graves, those whose widths are less than one-half their length, are predominant among all burial structures. However, compared with the previous period, a substantial increase occurs in the number of very wide or sub-square

graves (Fig. 1b, e, f-g). During the Early Sarmatian Period in the southern Ural region, the wide or sub-square burial pit is essentially absent. In the Middle Sarmatian Period these burial pits account for 17.7% of the excavated burials. In the lower Volga River region the sub-square burial which composed approximately 15% of the excavated burials was used erratically. In some cemeteries the sub-square pit is used in over 50% of the burials. In other cemeteries this pit type may be nearly absent. In the Volga-Don river regions wide and sub-square graves compose not less than 25% while in the North Black Sea area about 30% are wider pits. One of the more interesting Middle Sarmatian burial rites was placing the dead diagonally in the grave (Fig. 1 b, e, f, g). This practice is known rarely among the Sauromatian and Early Sarmatian cultures.

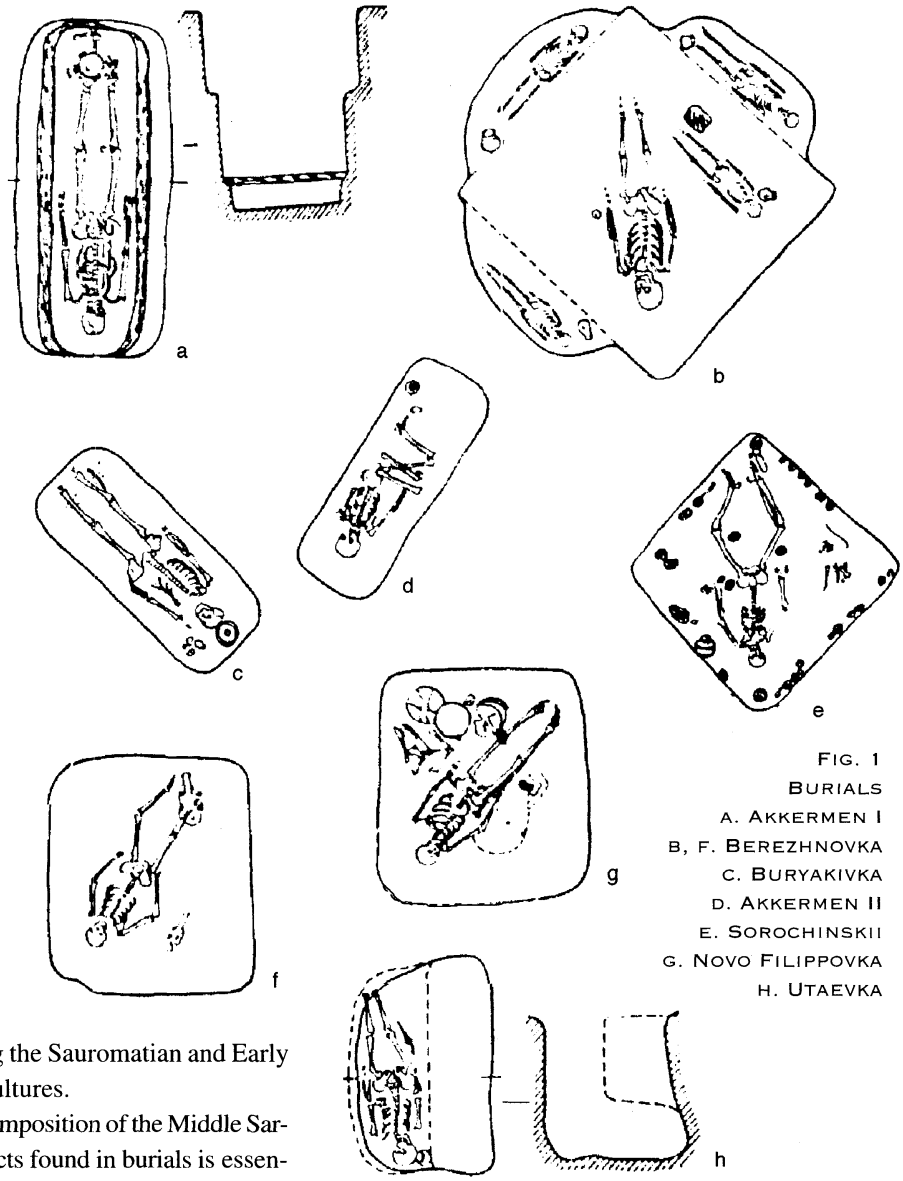


FIG. 1
BURIALS
A. AKKERMEN I
B, F. BEREZHNOVKA
C. BURYAKIVKA
D. AKKERMEN II
E. SOROCHINSKII
G. NOVO FILIPPOVKA
H. UTAEVKA

The composition of the Middle Sarmatian artifacts found in burials is essentially the same as during the previous period. Weapons, horse harnesses, labor implements, pottery, metallic vessels, adornments, toilet, and cultic articles are the principal offerings. The objects were not consistently placed in any specific place within the grave. Vessels were usually at the feet or head of the deceased or in groups in the corners of the burial pit. Weapons were placed to the left or right of the body. Mirrors were found at the shoulder, head, or elbow. Adornments were found on the body in the location they were usually worn.

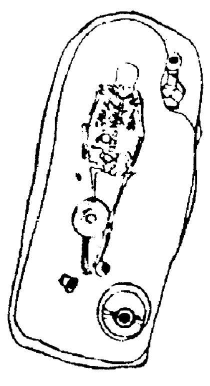


FIG. 2
BURIAL
AKKERMEN II

Middle Sarmatian weapons include short swords, measuring 50 to 60 cm long. Daggers generally had a right-angled guard and a ringed pom-

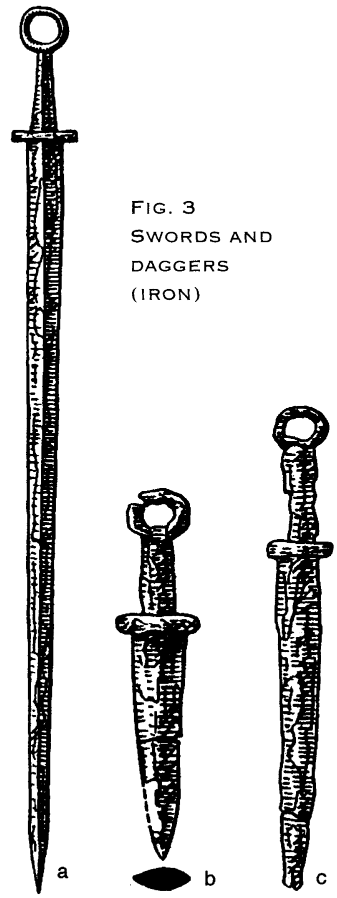


FIG. 3
SWORDS AND DAGGERS
(IRON)

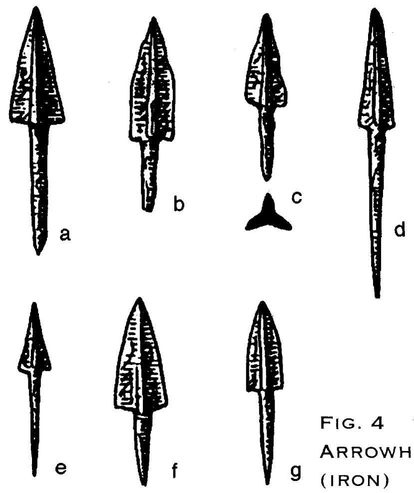


FIG. 4
ARROWHEADS
(IRON)

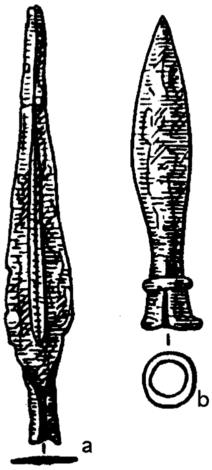


FIG. 5
SPEARHEADS
(IRON)

mel. In graves dating to before the turn of the era long swords measuring 1 m or more with ringed pommels have been found (Fig. 3). Daggers with crescent-shaped pommels, characteristic of the previous period, were also an occasional find. All arrowheads are iron, tanged, and comparatively small, although larger ones begin to appear (Fig. 4). The larger arrowheads indicate that the short bow was gradually being replaced by a longer one measuring 120 to 160 cm in length. Bone plates reinforced the center grip and both ends of this bow.

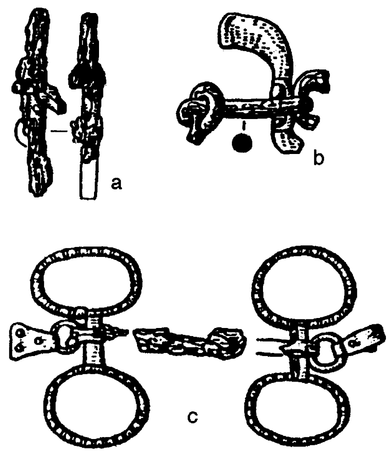


FIG. 7
PSALIA
A-B. (IRON)
C. (BRONZE AND IRON)

Although spearheads (Fig. 5) are a very rare find in burials they probably were widespread. According to Tacitus, not later than in the 1st century A.D. Sarmatian troops contained detachments of catafractaria who used long spears as their main offensive weapons. (The spears measured 3.5 to 4.5 m.) It is assumed that the absence of the spearhead in the Middle Sarmatian burials as well as in burials of the earlier periods was a cultural tradition. Armor

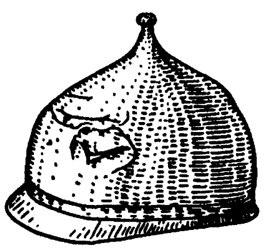
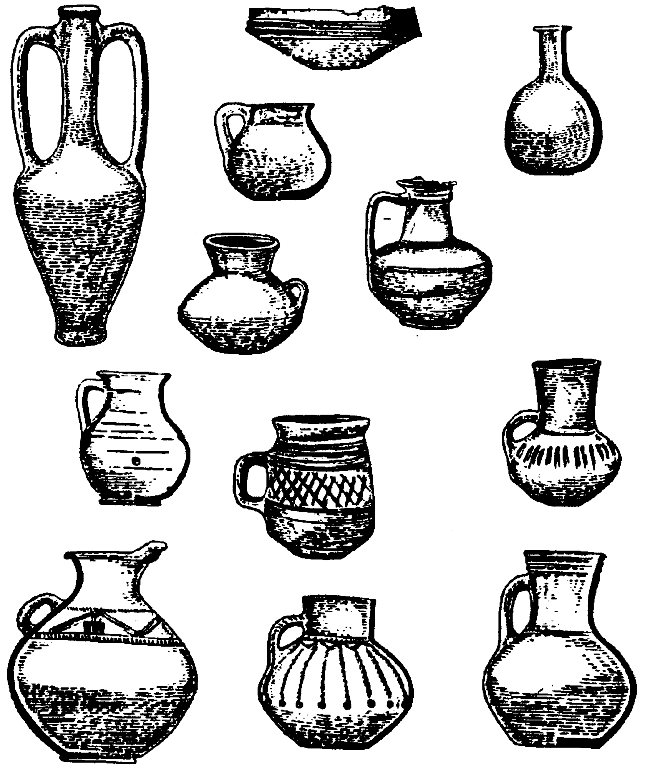


FIG. 6
BRONZE HELMET
MARIENTAL

FIG. 8 (RIGHT)
CERAMICS
GROUPS A AND B.
THE VOLGA-DON INTERFLUVIAL AND THE SOUTHERN URAL STEPPES.
SITES INCLUDE KALINOVKA, BEREZHNOVKA, AND KOS-OBA
GROUP C.
CERAMICS FROM THE NORTH BLACK SEA SITES INCLUDING AKKERMEN, VELIKIE PROKHODY, NOVO PODKRYAZH, AND NOVO FILIPPOVKA



Group A



Group B



Group C

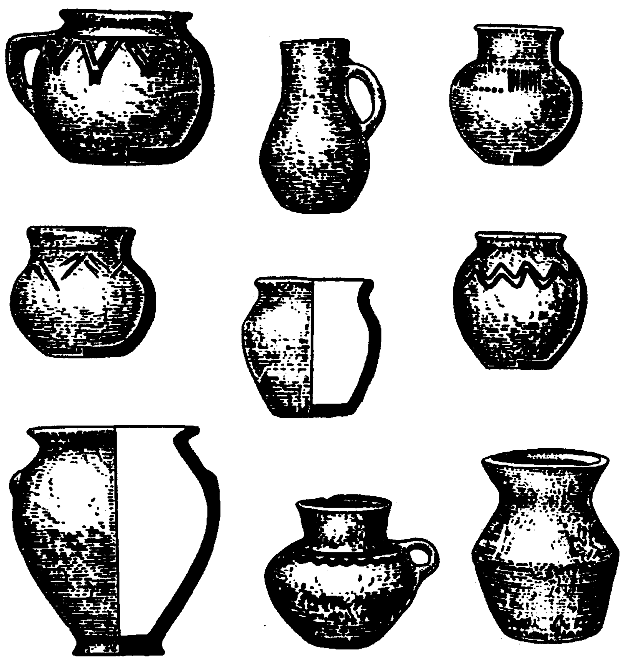


FIG. 9
CERAMICS, LOWER VOLGA REGION
INCLUDING FROM
KALINOVKA AND BEREZHNOVKA

is represented only by rare finds such as two bronze helmets (Fig. 6). However, without a doubt armor was widely used. Tacitus writes that heavy armor was worn by the Rhoxolani chieftain and nobility.

Horse harness accoutrements are only rarely found. They are generally represented by annulated iron bits. The bits frequently have additional rings to which clamps were attached. Psalia are more frequently found. They are generally made of iron, although a rare bronze psalia has been excavated (Fig. 7). In rich military graves the horse harness sets include phalera.

The most numerous and versatile grave artifacts are both handmade and wheel-made pottery. According to a majority of researchers, the Sarmatians did not use the potter's wheel. All wheel-made pottery, especially numerous in the Middle Sarmatian Period, were imported items (Fig. 8). The form and type of the pottery make it possible to trace the trading patterns and the economic ties of each regional Middle Sarmatian confederation. Within each district a specific set of shapes defined the local handmade pottery. With some rare exceptions, all of the pottery is flat-bottomed. Pots of different forms, a small number of jars, and rarely a bowl-plate, are found. The handmade pottery complexes from the lower Volga River region (Fig. 9) and of the pre-Ural steppes (Fig. 10) are different from those found in the North Black Sea region (Fig. 11). In the southern Ural area, where the Prokhorovo Culture developed, the characteristic form of pottery is the round-bottomed, pear-shaped vessel. This shape survived the longest and is not encountered in other Sarmatian regions (Fig. 10). Characteristic of the lower Volga River region and found in great quantities are pots with neutral forms (Fig. 9). The ceramic complex of the lower Volga River region and the southern Ural region differs from that of the North Black Sea region. In the former regions a large number of bowl-plates are found. This form was occasionally placed on a low base. The large



FIG. 10
CERAMICS
SOUTHERN URAL STEPPES
INCLUDING
KALINOVKA
GERASIMOVKA
KARASY

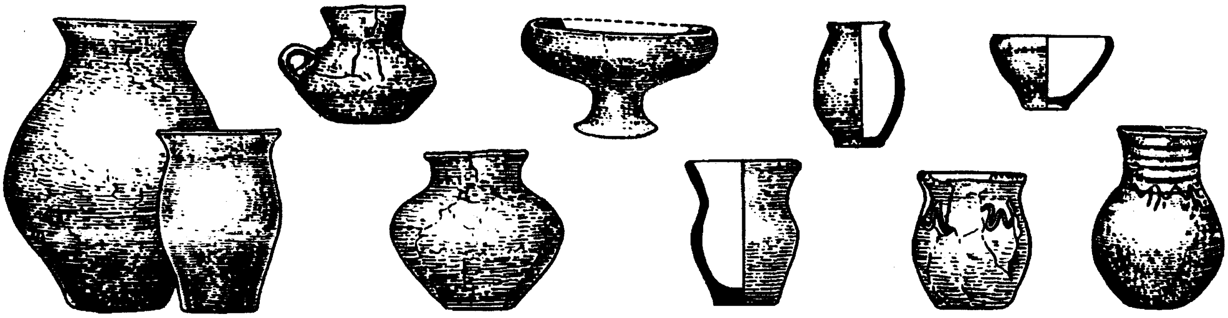


Fig. 11
Ceramics
north of the
Black Sea
including
Akkerman

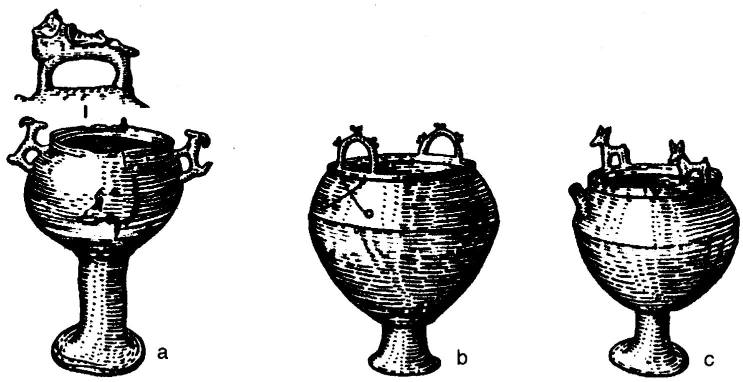
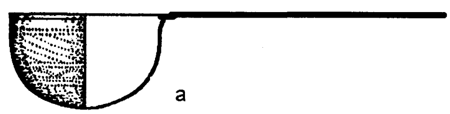


Fig. 12
Cauldrons
a. Kilyakovka
b-c. Bagaevskii

pots were also very characteristic of those found in the Black Sea region. These forms are a Scythian legacy (Fig. 11). In addition to clay vessels, the Middle Sarmatians used bronze cauldrons and small kettles (Fig. 12). Other imported metallic vessels included bronze and silver jars, basins, cups and bowls, kantharoi, paters, ladels, and strainers (Fig. 13). These pieces were usually imported from the workshops of northern and southern Italy, Galla, the Danube River provinces, and Asia Minor. Tools of labor included iron knives, awls, bone piercers, and whetstones as well as clay spindle whorls (Fig. 14).



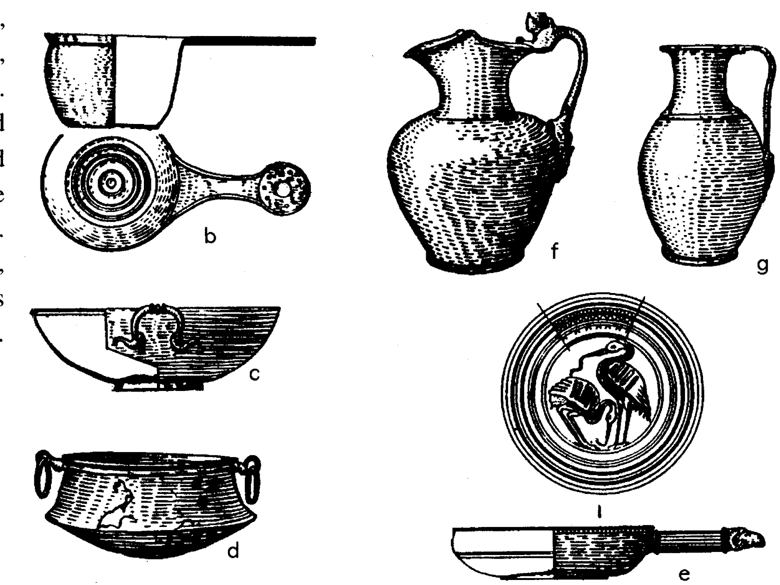


Fig. 13
Imported metal vessels
b. Bol'shaya Dmitrievka
e. Sladkovskii
f. Tsvetna

Tilling tools such as celt adzes (Fig. 15) are found very rarely. Even rarer, and only found in the Don River region, are farming implements such as picks, hoes, and reaping knives (Fig. 16).

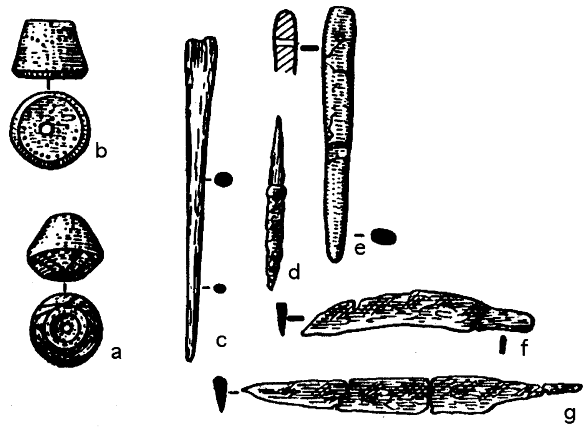


Fig. 14
A-B. Spindlewhorls
(Bone)
Other tools
C. (Bone)
D. (Wood/Iron)
E. (Stone)
F-G. (Iron)

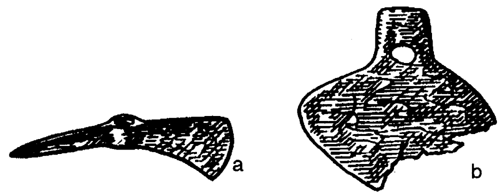


Fig. 16
A. Pickaxe
B. Shovel
(Iron)

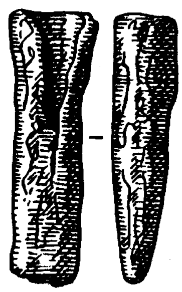
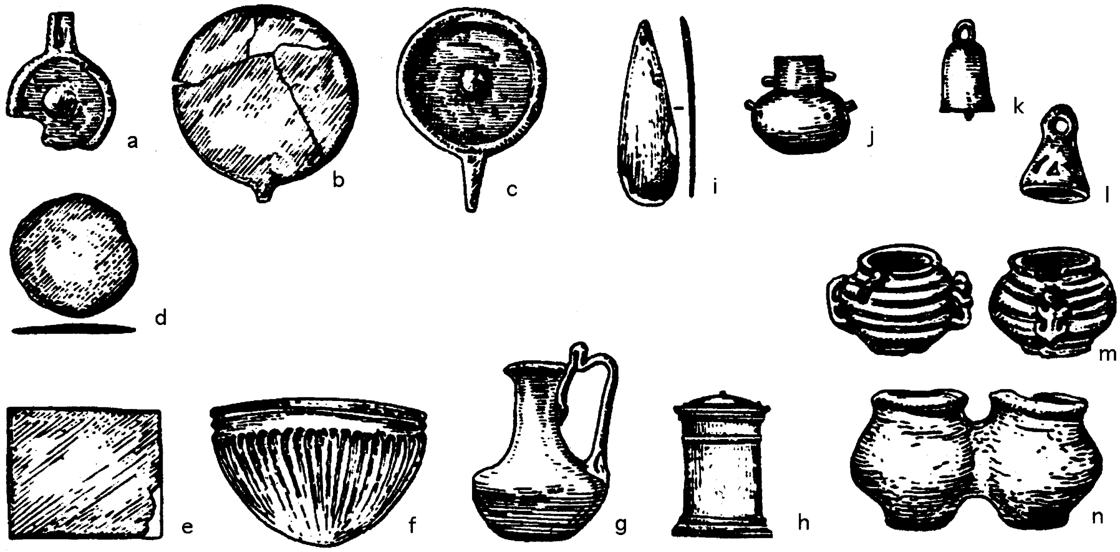


Fig. 15
Iron tool



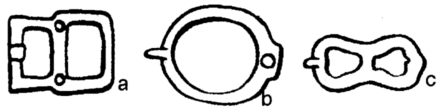


FIG. 18
BUCKLES

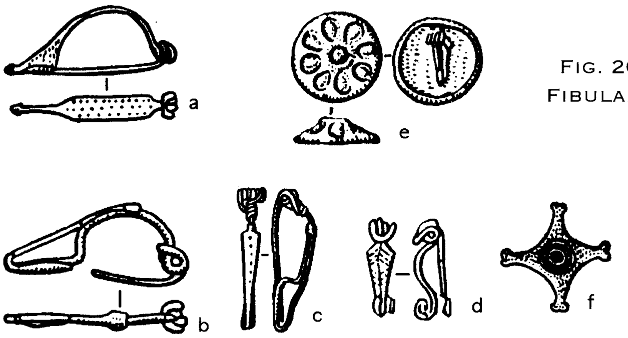


FIG. 20
FIBULAE

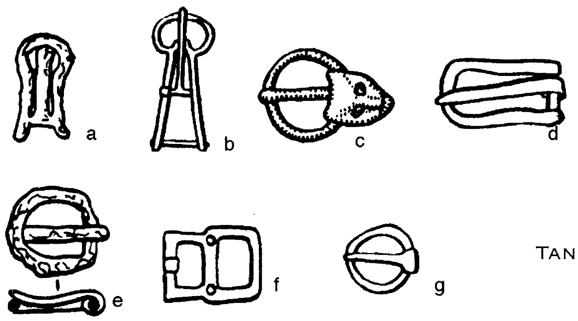


FIG. 19
TANGED BUCKLES

FIG. 17 (LEFT)
ARTIFACTS FROM BURIALS
A-E. MIRRORS
AKKERMAN II, BEREZHNOVKA,
ALITUB, UST-KAMENKA
E. BEREZHNOVKA (BRONZE)

TOILET AND OTHER CULTIC OBJECTS
F. KALINOVKA (GLASS)
G. AKKERMAN II (GLASS)
H. NOVO PODKRYAZH (BONE)
I. KALINOVKA (BONE)
J. ALITUB (SILVER)

K-L. BELLS
NOVO PODKRYAZH, ALITUB
(BRONZE)

M-N. CONTAINERS
BEREZHNOVKA AND DOLINA
(STONE)

Toilet articles are represented by bronze mirrors, bone spoons, pixsedes, and small bronze, silver, alabaster, and glass toilet vessels (Fig. 17). Occasionally, some buckles with immobile hooks and button projections were found (Fig. 18). These date to before the turn of our era. At a later time, bronze and iron buckles with articulated prongs were used on clothing as well as horse harness equipment (Fig. 19). Not later than in the 2nd century B.C. bronze and iron fibulae first appeared (Fig. 20). Jewelry included bracelets, torques, earrings, pendants, and badges that were sewn onto clothing (Fig. 21). Beads in a variety of forms included those made from Egyptian faience (Fig. 22), glass, and stone. The clay censers, alabaster pots, and bronze bells

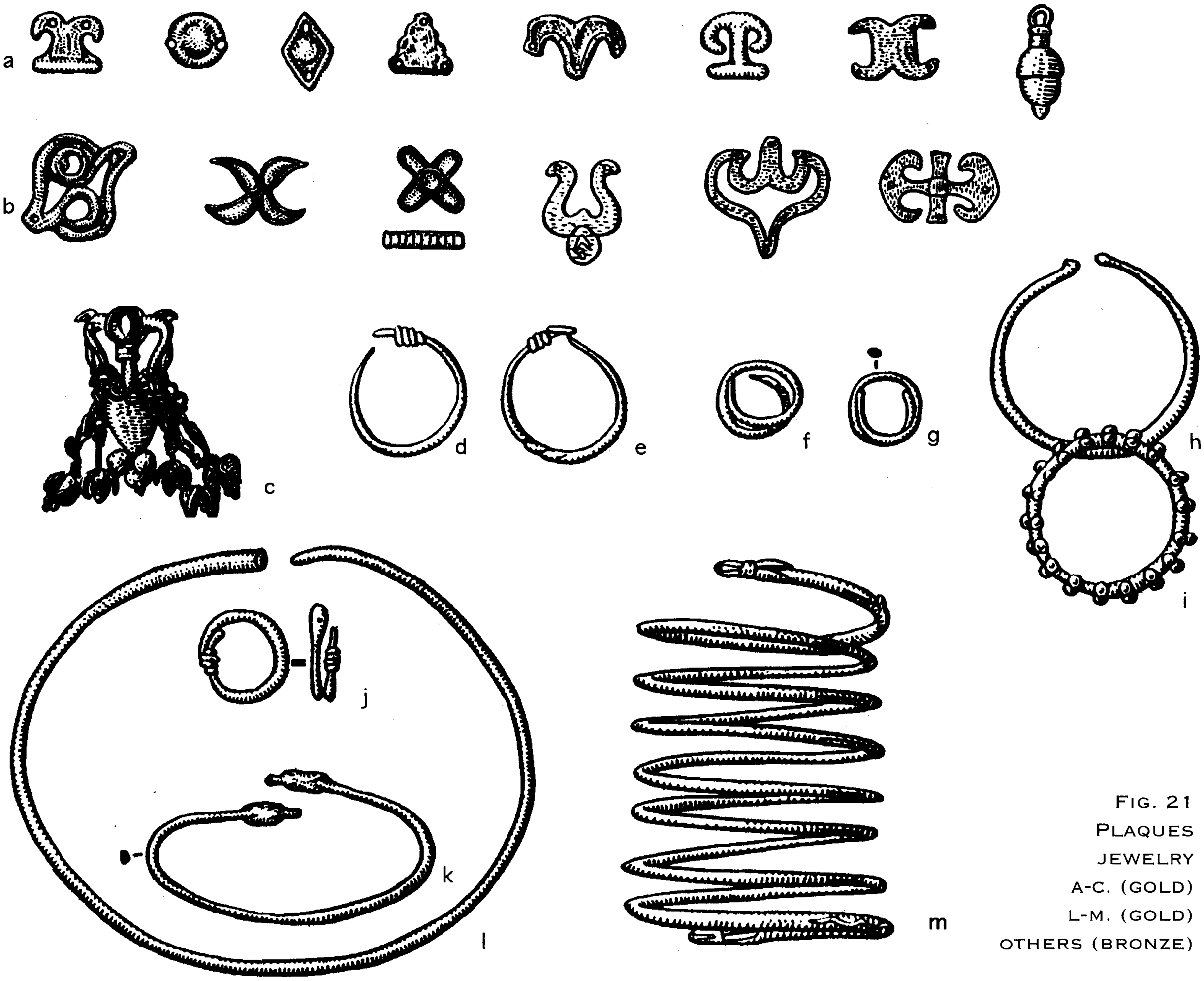


FIG. 21
PLAQUES
JEWELRY
A-C. (GOLD)
L-M. (GOLD)
OTHERS (BRONZE)

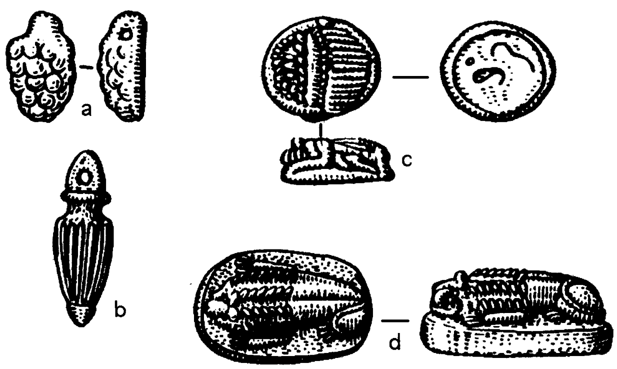


FIG. 22
A. AKKERMAN II
B. KOS-OBA
C. SOROCHINSKII
D. UST-KAMENKA
(FAIENCE)

that were found are considered cultic objects (Fig. 23). Blown glass censers that served as braziers for small ceramic shaped vessels first appear in the Middle Sarmatian Period.

It is interesting that at this time jewelry ornamented with animal style art and harness parts began to appear. The polychromic stylization incorporating semi-precious turquoise and carnelian is similar to many of the finds from Tillia Tepe in Afghanistan (Sarianidi, 1985).



FIG. 23
CULTIC OBJECTS
A, C. BEREZHNOVKA
B, D. AKKERMEN II

CHAPTER 10

LATE SARMATIAN CULTURE

MARINA G. MOSHKOVA

Not later than around the middle of the 2nd century A.D. the Late Sarmatian archaeological complex achieved its final form. This culture reflected the final development of the independent Sarmatian nomadic unions. The mechanisms of transition from the Middle Sarmatian into the Late Sarmatian culture are complex. They include the paths and character of innovations and their transformation of innovations into a system of traditions. Moreover, identifying nomadic unions of that time with the ethnonyms found in written sources is debatable. This is particularly true of the Alans.

Late Sarmatian sites were first identified by P.D. Rau. He dated them to the 3rd-4th century A.D. (Late Roman Stage, Stufe B). He also associated the Late Sarmatian sites with the historical Alans. According to Rau, small, independent Sarmatian tribal unions of the 1st-2nd century A.D. (Early Roman Stage, Stufe A) had merged by the 3rd century A.D. to form a single people. These were known to the ancient authors as the Alans (Rau, 1927, p. 74). The identification of the Late Sarmatian archaeological complex with the Alan ethnos was accepted by B.N. Grakov and K.F. Smirnov and later by many scholars. However, Grakov and Smirnov modified Rau's dating of both the Middle and Late Sarmatian complexes. In view of the Kuban analogies, Smirnov (1947) suggested shifting the periods back in time by one century:

Middle Sarmatian Period: 1st century B.C. to 1st century A.D.
Late Sarmatian Period: 2nd-4th centuries A.D.

Grakov used this dating in his periodic system. Later, a more detailed Late Sarmatian chronology was developed (Skripkin, 1984):

Formative Period: late 1st and early 2nd centuries A.D. to the mid-2nd century A.D.
Florescent Period: mid-2nd to mid-3rd centuries A.D.
Final Period: mid-3rd to 4th centuries A.D.

The most archaeological sites discovered have been dated to the period of flourishment. Over 500 burials have been found throughout the entire Sarmatian territory, from the southern Ural steppes westward to the Danube River.

Throughout ensuing years of research differences of opinions among scholars concerning the origins of the Late Sarmatian culture and especially regarding questions concerning the Alan tribes have not been resolved. Although many researchers (Abramova, Vinogradov, Moshkova, and others) still embrace the dating established by Rau, Grakov, and Smirnov, other scholars oppose it (Machinsky and Skripkin). The culture's formative processes were long and complex. It appears that the sites dating to the Late Sarmatian Period were left by a polyethnic community that included the Alans established as either a tribe or a group. As discovered in archaeological materials new waves of Iranian-speaking nomadic tribes began to enter the area in the middle of the 1st century A.D. They continued to arrive until sometime in the 2nd century A.D. It is possible that the Alans were among these tribes. The appearance of these Iranian-speaking nomads in the lower Don River region is confirmed also by onomastic materials from Tanais River (Shelov, 1974). The hypothesis that has been presented suggesting that the tribes arrived as a single group from the east, possibly Central Asia, is questionable. Scholars debate whether or not in the Volga-Don interfluvial and the lower Don River region the Late Sarmatian culture came about as the result of a tribal union which was composed of local inhabitants and foreign invaders. Because all written sources of the 2nd half of the 1st century A.D. to the 4th century A.D. document these tribes as Alans no other Sarmatian community or union is known. As reflected in written sources it is probable that the Alans had supremacy over the tribal union. For example, Ammianus Marcellinus reports that all of the Eurasian nomads were given the name Alans "in view of their customs, savage way of life and uniform armament" (Ammianus Marcellinus, *History*, XXXI, 2, 17). The cultural artifacts from the complexes of the three major Sarmatian areas, the southern Ural steppes, the Volga-Don interfluvial, and North Black Sea region including the northwestern regions, indicate that the inhabitants of these locales did not enjoy identical customs. This is evident because of the quantity of indigenous material discovered.

Evidence from burial sites dating to the middle and late 2nd century A.D. indicates that the density of the Sarmatian population in the North Black Sea steppe, with the exception of the northwestern territories between the Dnieper and the Danube rivers, decreased significantly. After the Gothic campaigns of the mid-3rd century A.D. the North Black Sea Sarmatian sites survived only in the northwestern territories. Almost all of the others disappeared. The Gothic campaigns ended Sarmatian domination in the North Black Sea area. These campaigns probably also contributed to the decrease in Sarmatian population in the steppe between the Don River and Ural Mountains. However, some rich graves dating to this period have been excavated in the reaches of the lower Don River.

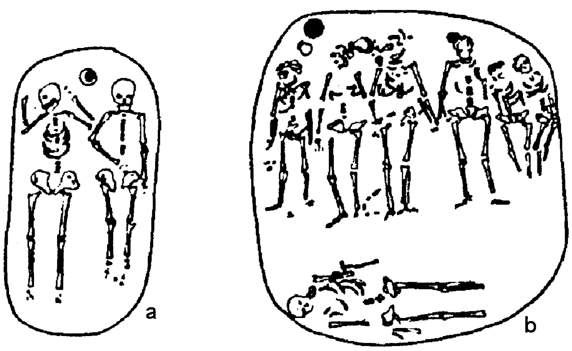


FIG. 1
BURIALS
TEMYASOVO

As in the case of the earlier Sarmatian cultures our knowledge of this more recent culture is based upon discoveries of cemeteries and graves. Late Sarmatian Period cemeteries without mounds are known only in the west such as at Krinichnoye, Ostrovets, and Kiselev in the Dniester-Danube interfluvial. Throughout the remaining Sarmatian territory the dead were buried under small, earthen kurgans. Many measured between 8 and 10 m in diameter. Mounds of 8 to 15 m in diameter and an occasionally large kurgan of up to 30 m in diameter have been discovered. The kurgans usually were 0.25 to 0.65 m high. An occasional kurgan measured 2.0 to 2.5 m high. In the trans-Volga River region and southern Ural steppes 95% of the kurgans contain only a primary burial. In the Volga-Don interfluvial single burials constitute about

50% of the burials. In contrast, north of the Black Sea secondary burials prevail. The majority of the graves contained only one skeleton although a few had two burials. Several graves were collective containing multiple skeletons in a single burial (Fig. 1).

Although the burial structures are of a different type the architectural construction is essentially unchanged. Changes are noted in the quantitative correlation between types of burial structures and burial rites. Graves with niches and narrow earthen burials are typical of the Late Sarmatian Period (Fig. 2). In the North Black Sea area graves with niches are less numerous than those east of the Don River. On the right bank of the Dnieper River narrow, rectangular, or oval earthen pits are predominant. Niches within the burials also underwent modifications. They were not the same as those from the previous period. Both the entrance pits now measuring as little as 0.5 m, and chambers as narrow as 0.40 to 0.70 m seemed to have been designed to save construction labor. Sometimes the niches were so small the body had to be squeezed into the chamber. These architectural elements are considerably different than the wide, roomy entrance pits, chambers, and niches of the Early and Middle Sarmatian periods. Nearly absent in the Middle Sarmatian Period, the number of catacombs increased dramatically during the Late Sarmatian Period (Fig. 3). This is especially the case in the Don River area. Burial types surviving from the previous period are those with ledges, average width, and almost square earthen pits (Fig. 4). East of the Don River, burials belonging to the last two types generally date to the earlier Late Sarmatian Period. The North Black Sea sites differ from those found farther east. On the left bank of the Dnieper River wide rectangular and square graves constitute almost 25% of all Late Sarmatian burials. Even though the burial types differ proportionately in the three major Late Sarmatian regions, those in the North Black Sea region are the most unusual.

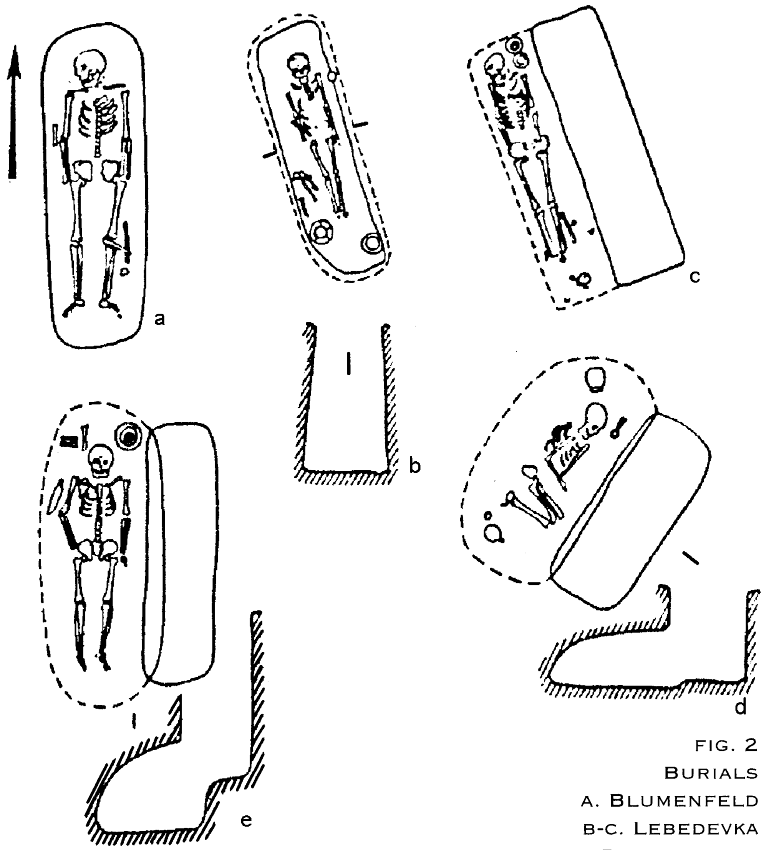


Fig. 2
Burials
A. Blumenfeld
B-C. Lebedevka
D. Berezhnovka
E. Kalinovka

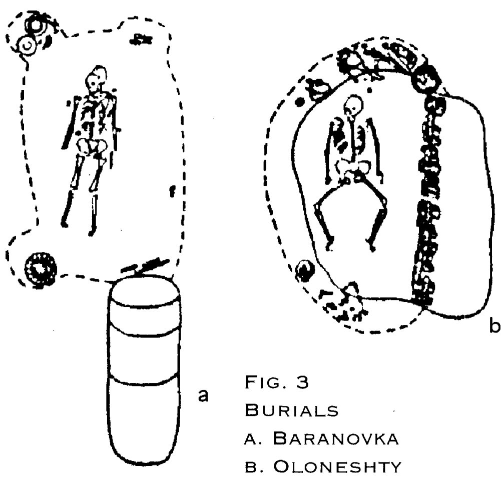


Fig. 3
Burials
A. Baranovka
B. Oloneshty

As in the previous period wood usu-

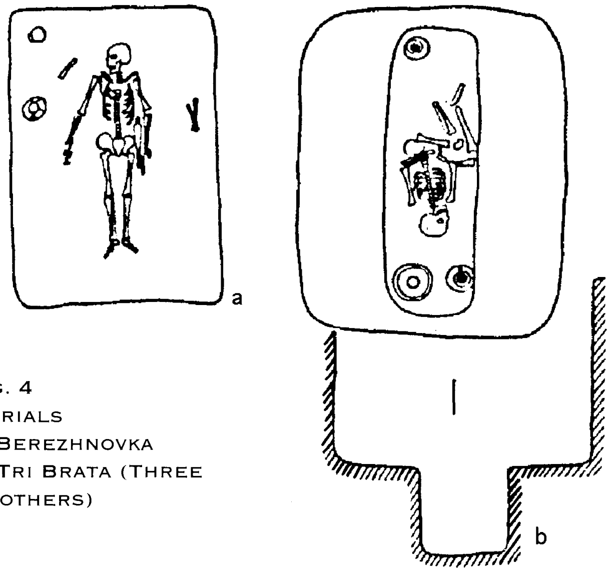


FIG. 4
BURIALS
A. BEREZHNOVKA
B. TRI BRATA (THREE BROTHERS)

ally lined the burial floor. This was the case most often in the square or wide rectangular graves. As before, the bodies were frequently laid on reed mats or birch bark. A new custom of wrapping the body in birch bark appeared. This custom is particularly evident in the narrow, rectangular, and niched burials than in the wide graves. Sometimes the bodies were laid in coffins and hollowed-out logs.

In contrast to the Middle Sarmatian culture, between the 2nd and 4th centuries A.D. the predominant orientation of the deceased was to the north. In the southern Ural steppes 95% of the burials were orientated to the north. In the Trans-Volga and Volga-Don river regions, about 75% of the burials were orientated to the north. In the more western areas about 70% of the burials were orientated to the north. Most of the remaining burials were orientated to the south with a few to the west or to the east. Northern orientation in the narrow graves and graves with niches prevailed throughout the entire Sarmatian territory. In general, the deceased was supine, with the arms along the body, and with the legs parallel. Sometimes one or both hands lay on the thigh or in the pelvic region. On very rare occasions the deceased was placed on one side.

One of the most characteristic traits of the Late Sarmatian culture was the artificial deformation of skulls. This was probably accomplished by tying a soft cloth around the infant's head forcing an elongation of the cranium. This cultural trait was specific to the populations living east of the Don River and included the southern Ural population. West of the Don River, north of the Black Sea, and up to the Danube River deformed skulls were very rare.



FIG. 5
CERAMICS
NORTH BLACK SEA REGION

During the early years of the Late Sarmatian Period traditional burial rites included placing pieces of chalk, arsenic, and ocher in the burials. This custom gradually decreased after the later part of the 2nd century A.D. Occasional pieces of charcoal and small ash lenses were found in the graves or kurgans indicating the existence of the fire cult among some of the Late Sar-matians. The frequency of animal bones found in burials indicating offerings of food also diminished. Generally the

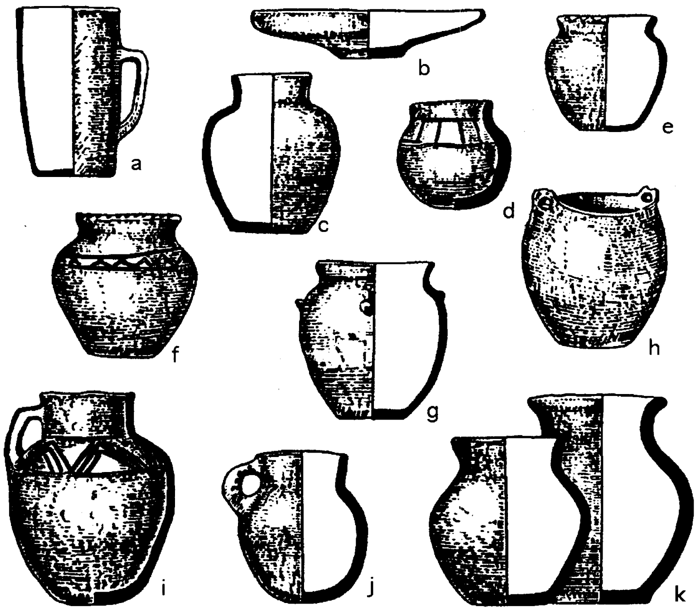


FIG. 6
POTTERY FOUND IN BURIALS
DON-VOLGA INTERFLUVIAL

offerings that were placed in the burials were portions of mutton. Less frequently, portions of horse and only rarely portions of beef were placed in the burials.

The composition of artifacts found in the male, female, and juvenile burials remained the same as in the previous period. However, the types of artifacts changed. Pottery was not as diverse. Hand-modelled vessels continued to carry local traits. After the mid-3rd century A.D. the quantity of wheel-thrown ceramics decreased sharply both in the eastern areas and in the North Black Sea region. The assortment of vessel types and shapes was completely dependent upon the trading contacts the Sarmatians enjoyed.

Hand-modelled vessels constituted the basis of the ceramic complex. They were primarily represented by flat-bottomed pots. Only a few jars and bowl-plates were found. In spite of the similarity between the ceramic complexes in all three major areas, each complex had its own peculiarities (compare Fig. 5 with Figs. 6, 7). The ornamentation on all of the vessels and pots was particularly poor. Pottery found in the southern Ural steppes is mostly represented by imports from Central Asian workshops (Fig. 8 a-f). Those from the lower Volga River region and Volga-Don interfluvial were imported from the Kuban and Don river regions (Fig. 9) as well as from the central North Caucasus (Fig. 10 a-b). In contrast, graves from the North Black Sea region yielded earthenware made by craftsmen from the Bosporus and Chersonesus (Fig. 11). In addition, imports came from the Kuban River region and lower Don River area (Fig. 12). In comparison with the previous period, red lacquered vessels (Fig. 13c) as well as silver and bronze jars, ladles, pots, and bowls from Italy and Asia Minor (Fig. 14) were much less numerous. After the middle of the 3rd century A.D., especially in the eastern region, the quantity of wheel-made ceramics and other imported artifacts sharply diminished. During that time small bronze vessels, measuring 17 to 20 cm in height appeared. These vessels were unstable with narrow bottoms. Two vertical handles ornamented the vessels (Fig. 15).

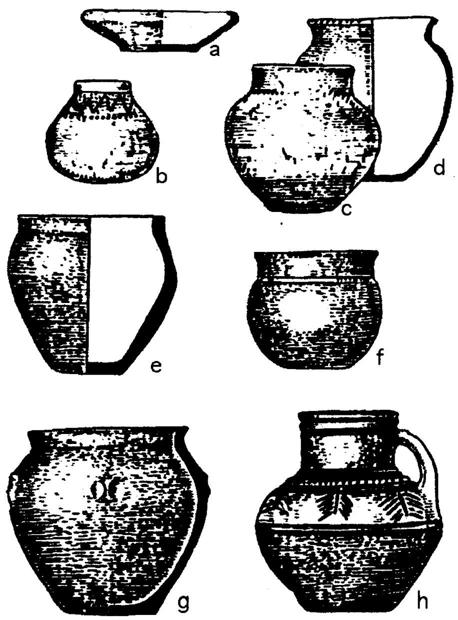


FIG. 7
POTTERY FROM BURIALS
SOUTHERN URAL STEPPES



Fig. 8
Ceramics from burials
southern Ural steppes

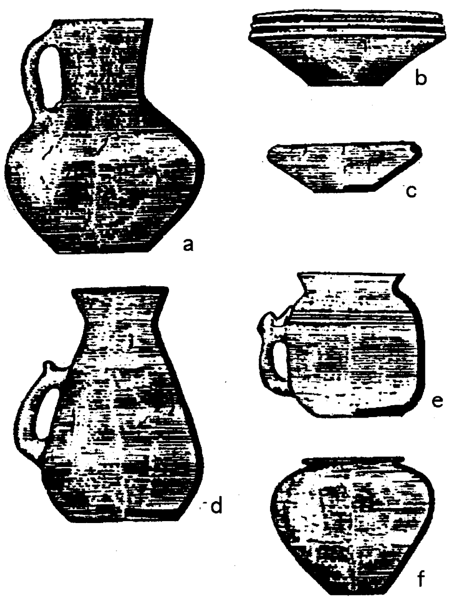


Fig. 9
Pottery from burials
Lower Don River region
Volga-Don interfluvial

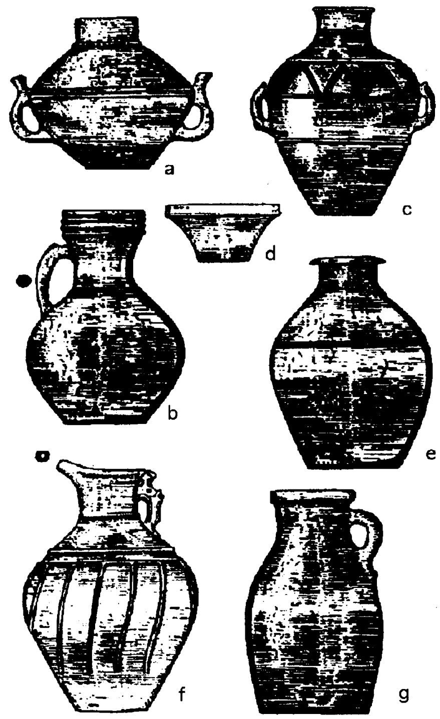


Fig. 10
Pottery imported from
a-c,f. the North Caucasus
e-g. Central Asia
d. red slipped

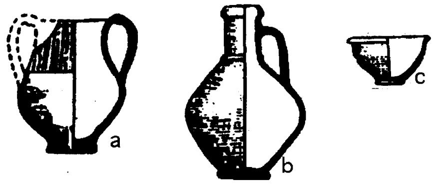


FIG. 11
POTTERY
NORTH BLACK SEA REGION

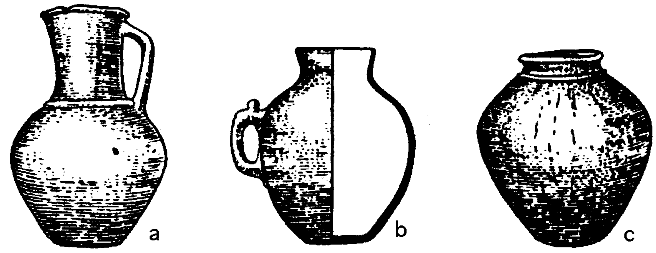


FIG. 12
POTTERY IMPORTS FROM
KUBAN RIVER REGION
LOWER DON RIVER REGION

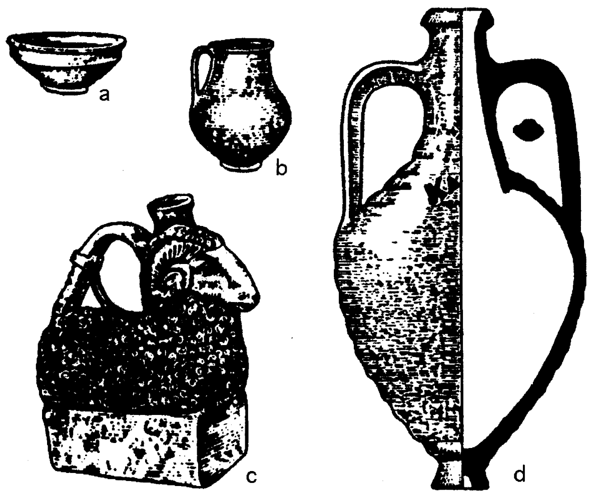


FIG. 13
POTTERY
NORTH BLACK SEA REGION
C. RED SLIPPED
D. AMPHORA



FIG. 14
METALWARE IMPORTS
FROM ASIA MINOR AND
ITALY

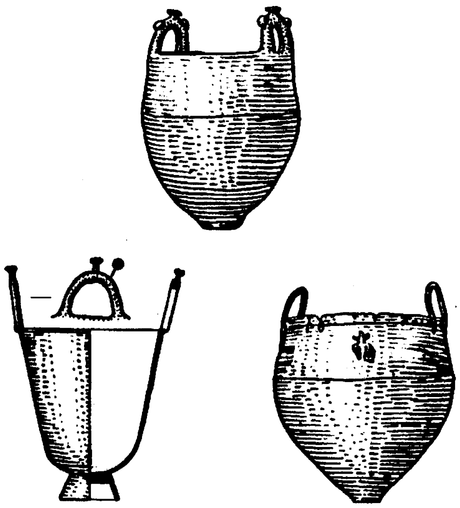


FIG. 15
CAULDRONS

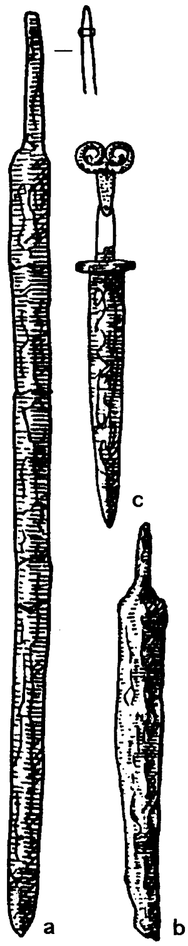


FIG. 16
A-B. SWORDS (IRON)
C. DAGGER
(IRON/BRONZE)

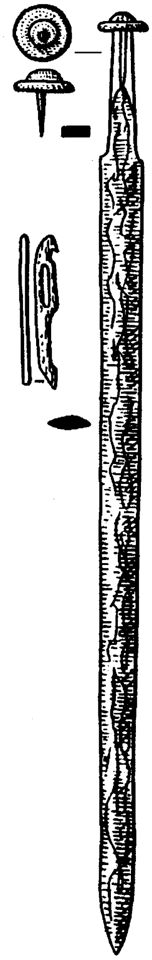


FIG. 17
SWORD
(IRON)

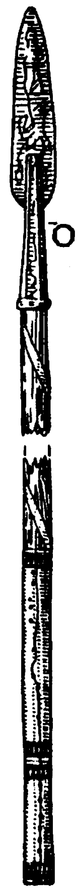


FIG. 19
SPEAR (IRON)
WOODEN HANDLE
TRIMMED WITH
SILVER

Long swords up to 1.3 m in length and daggers without metallic guards and pommels were characteristic of the Late Sarmatian weapons (Fig. 16). The pommels were probably carved from wood and did not survive. Some carnelian disk-shaped pommels and scabbard clamps are known (Fig. 17). Although not as frequent as in the previous period, iron-stemmed arrowheads and occasionally bone-stemmed arrowheads have been excavated. The arrowheads are generally large indicating that they were used with long bows reinforced with bone plates (Fig. 18). Spears are very rarely found in excavations (Fig. 19). Occupying a special place in the rich Late Sarmatian military burials are bridle sets made from bronze and silver (Fig. 20). Whips were also included in the accoutrements (Fig. 20h). As in previous periods, knives, whetstones, awls, needles with needle-cases, and spindlewhorls were prevalent types of tools found. Less frequently, spring-loaded scissors, small scoops, and occasional celt adzes and axes have been found (Fig. 21). During

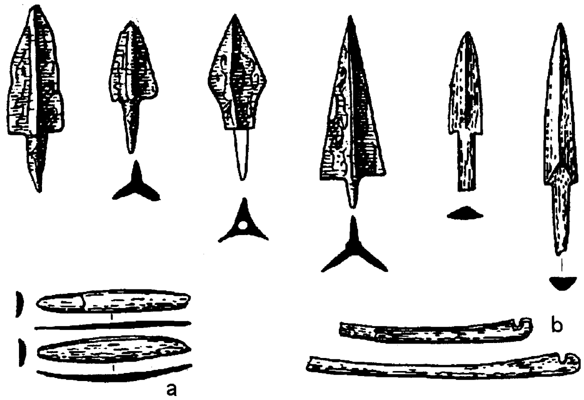


FIG. 18
ARROWHEADS (IRON AND BONE)
A-B. BONE PLATES FOR REINFORCING BOWS

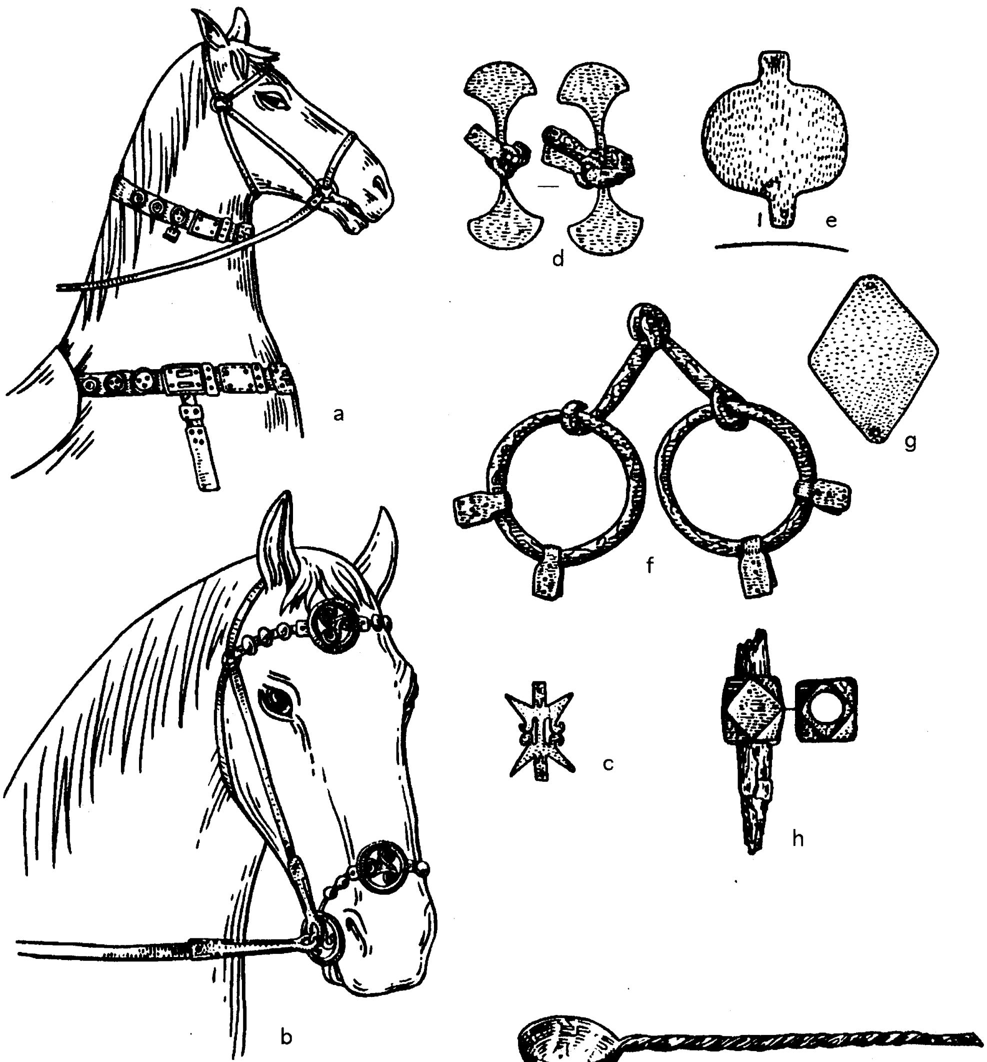


Fig. 20
Horse accoutrements
A-B. Reconstruction of horse trappings
C-G. (silver)
D. (iron, bronze)
E. (bronze)
F. (iron, bronze)
H. whip (wood, bronze)

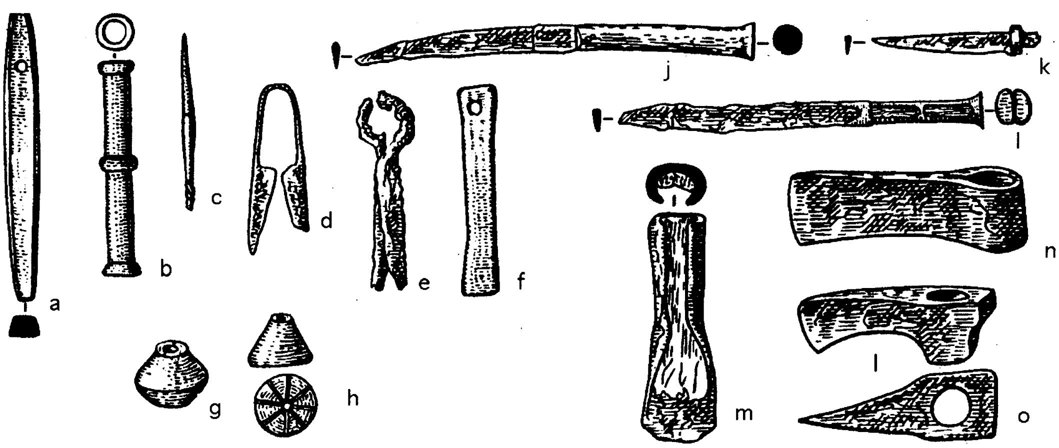


Fig. 21
Tools

the 2nd-4th centuries A.D. burials are numerous and contain diverse types of fibulae. These were generally made of bronze but also occasionally of iron or silver. Hinged fibulae decorated with enamel were Roman imports (Fig. 22). Round, oval, and rectangular-shaped framed buckles with articulated tangs were used on clothing, sword-belts, and bridle sets (Fig. 23). Shields were frequently found in the burials. As before, toilet sets found included mirrors (Fig. 24). In general, these mirrors are small and probably also served as amulets. Han Chinese mirrors have also been found especially in the southern Ural steppes (Fig. 24g). Silver, bronze, and very infrequently glass toilet vessels (Fig. 25), leather bags, and bronze tweezers (Fig. 26) have been excavated in all Late Sarmatian areas. Beads carved from carnelian, amber, rock crystal, and glass, and made of Egyptian faience are prevalent (Fig. 27). Bracelets, various pendants and earrings with insets, finger

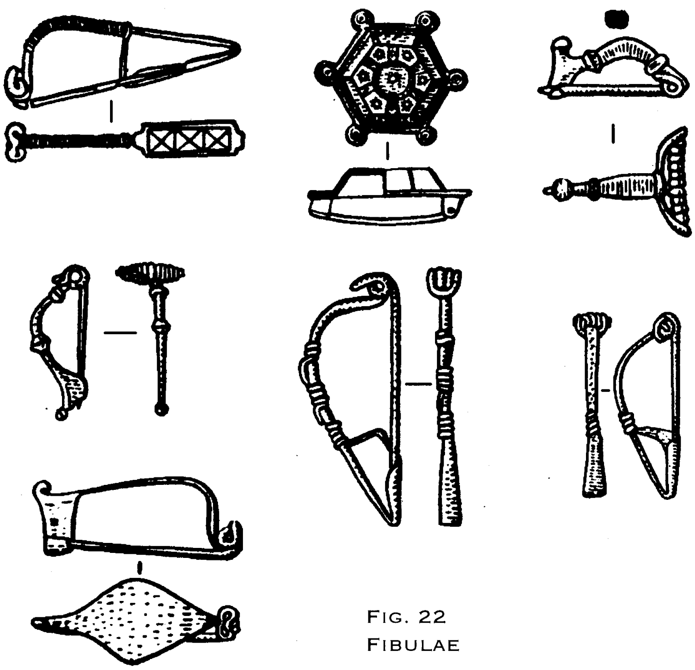


FIG. 22
FIBULAE

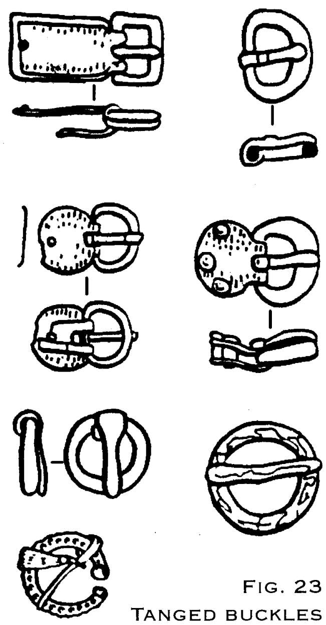


FIG. 23
TANGED BUCKLES

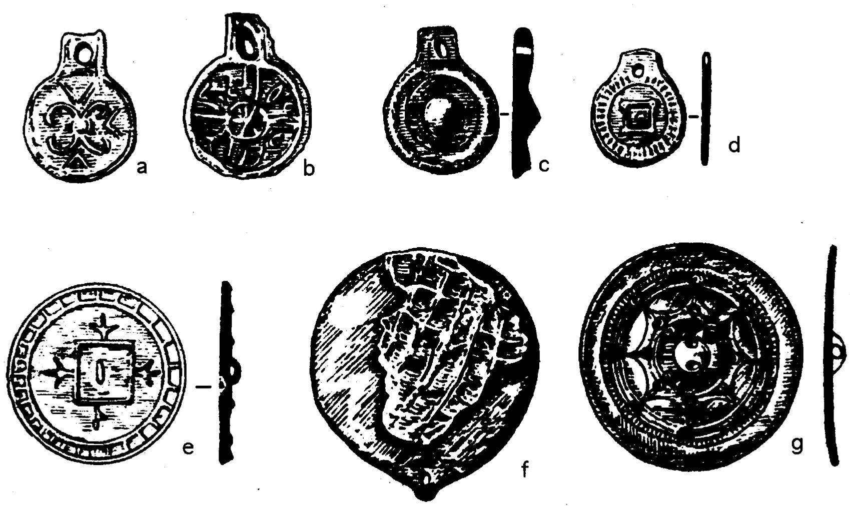


FIG. 24
TOILET AND CULTIC MIRRORS
A-E, G. (BRONZE)
F. (BRONZE AND LEATHER)

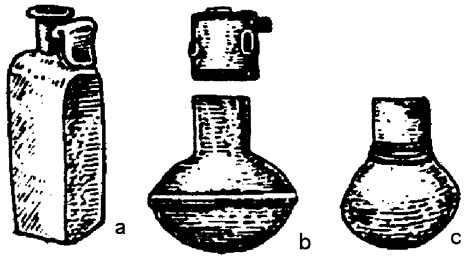


FIG. 25
TOILET AND CULTIC JARS FROM BURIALS
A. PERVOMAISK (GLASS)
B. KOTOVO (SILVER, GOLD, GLASS)
C. KALINOVKA (BRONZE)

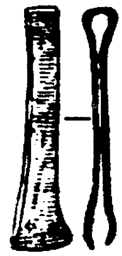


FIG. 26
TWEEZERS
(BRONZE)
BURIAL
SHULTZ

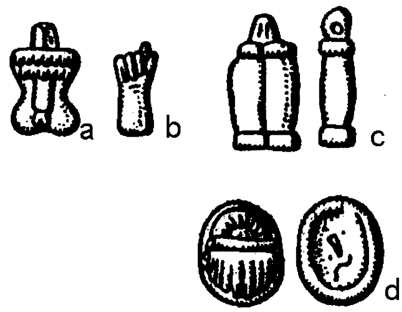


FIG. 27
CULTIC FAIENCE
OBJECTS

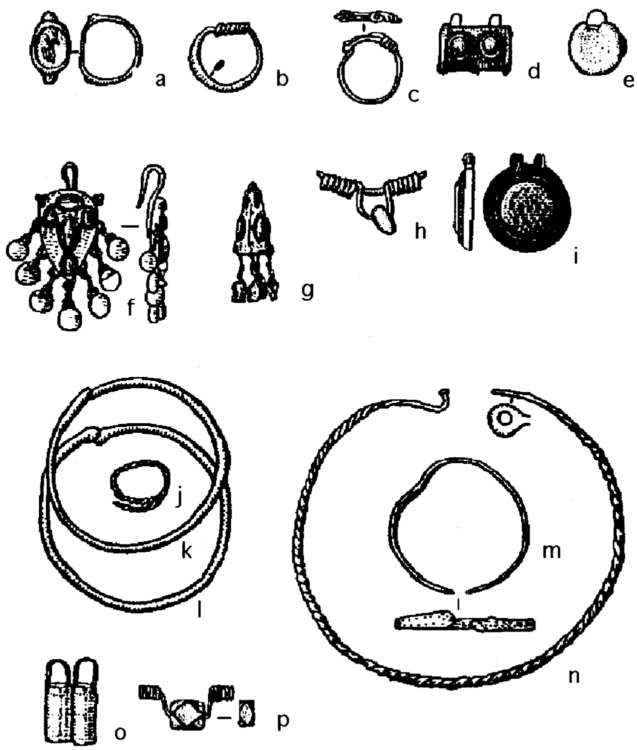


FIG. 28
JEWELRY
A-C, J. RINGS
D-E, H-I. PENDANTS
F-G. EARRINGS
K, M. BRACELETS
N. TORQUE

rings, the occasional torque (Fig. 28), and gold plaques which were sewn on clothing have been found (Fig. 29). Items attributed to a cultic function include clay censers, bronze bells, amulets of various types, and scarabs (Figs. 27, 30).

After the Hunnic invasion, the Sarmatian archaeological complex ceased to exist. However, some Sarmatian elements survived within the Eurasian nomadic cultures dating from the 5th to 8th centuries A.D. These elements were further developed by the populations of the North Caucasus and Don River regions.

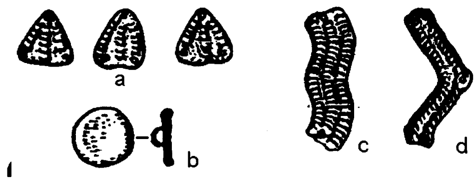


FIG. 29
DECORATIVE PLAQUES
(GOLD)



FIG. 30
ARTIFACTS WITH CULTIC FUNCTIONS
A-F. (CERAMIC)
G-I. (BRONZE)

- Kurgans
- Ground cemeteries
- Catacombs in ground cemeteries
- Fortified unfortified settlements
- Hidden treasure finds

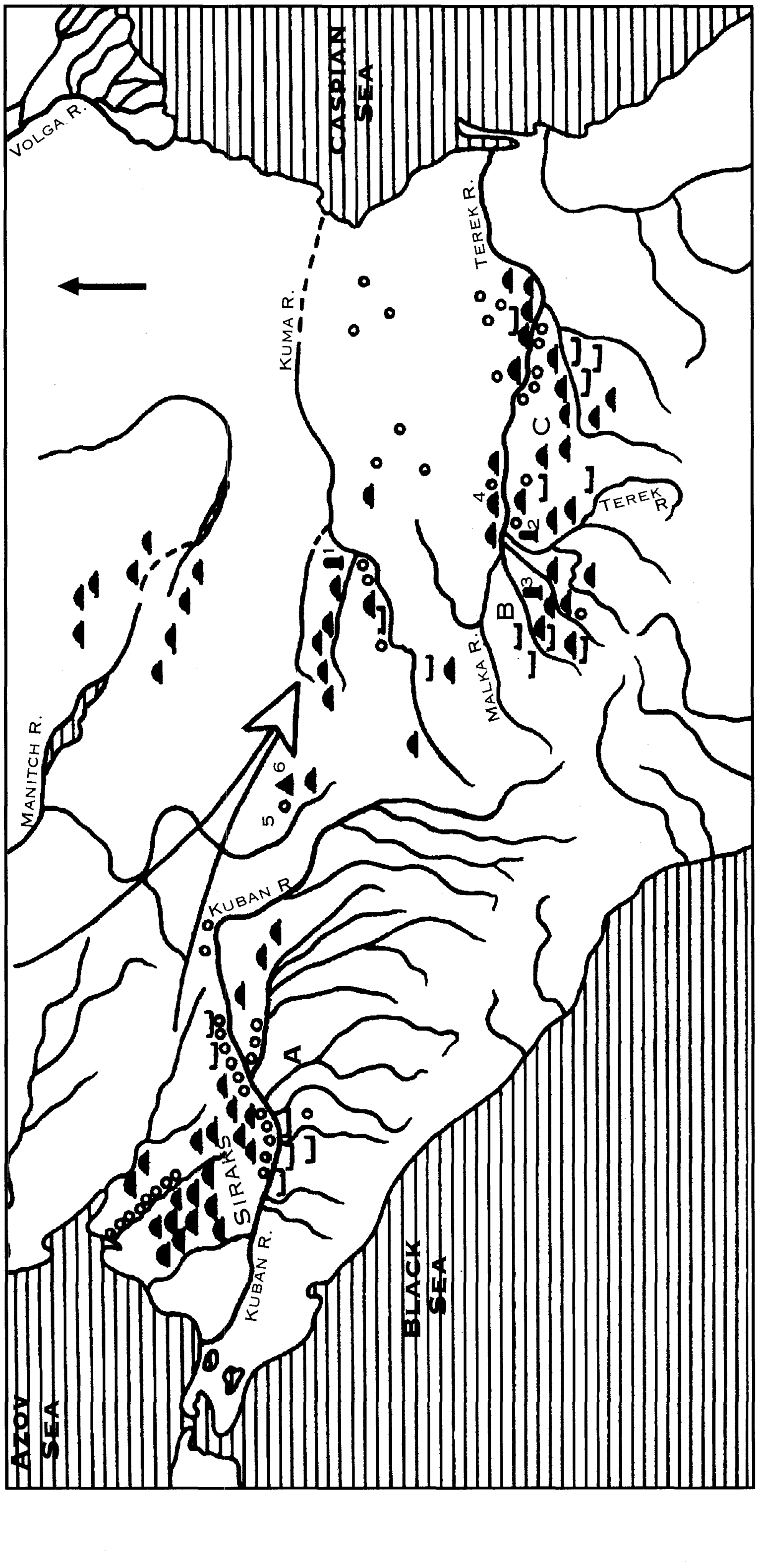
Areas

A - Prikuban'ye i Zakuban'ye
B - Kabarda
C - Zaterech'ye

Monuments Mentioned in the Text

1 - Chersonesos
2 - Nizhnii Dzhulat
3 - Chelem
4 - Komarovo
5 - Grushevskoe
6 - Kazanskoe

Key to Map 8. Northern Caucasus in the 3rd - 1st Centuries B.C.



Abramova

Map 8. Northern Caucasus in the 3rd - 1st Centuries B.C.

CHAPTER 11

SARMATIANS IN THE NORTH CAUCASUS

MAYA P. ABRAMOVA

The natural climatic condition in the steppes adjoining the North Caucasus were favorable for a nomadic lifestyle. For many centuries a succession of nomadic tribes lived adjacent to the local sedentary population. The conventional border between the populations ran along the Kuban, Malka, and Terek rivers (Map 8). The foothill zone south of the border was inhabited by agriculturists. However, this border was not always fixed. A few kurgans have been discovered within the agricultural region. Moreover, settlements and cemeteries belonging to the agriculturists have been discovered north of the border within the nomads' territory.

Iranian-speaking nomadic tribes, specifically the Scythians and Sarmatians, are special among the North Caucasian peoples. The Scytho-Sarmatians were instrumental in the ethnogenesis of some of the modern peoples living today in the Caucasus. Of importance in this group are the Ossetians, an Iranian-speaking group of people who are believed to have descended from the North Caucasian Alans. After the departure of the Scythians in the late 5th century B.C. the North Caucasus territory was sparsely populated. Small groups of Sarmatians arrived sometime in the late 4th to early 3rd centuries B.C. Due to the sparsity of the indigenous inhabitants at this time, small groups of Sarmatians penetrated into the territory probably without resistance.

In the eastern North Caucasus Sarmatian sites dating to the 4th-3rd centuries B.C. are scarce. Archaeological studies conducted in Kalmykia in the 1960s and 1970s have demonstrated that the Sarmatians entered the North Caucasus on a grand scale only from the early centuries of our era. The steppe areas of the northeastern Caucasus lying farther south have been poorly studied. Archaeological material available from Daghestan indicates that the local sedentary tribal development was not interrupted by any major nomadic intrusion. This fact is also confirmed in the written sources. Strabo reports that in the last centuries B.C. the Upper Aorsi owned a great part of the Caspian Sea coast. They were engaged in trading in Indian and Babylonian commodities with Armenians and Medians using camel caravans (Strabo XI, V 8). During this time the stable eastern North Caucasus permitted a permanent caravan route along the western Caspian Sea coast. Sarmatian nomads also maintained established contacts with local sedentary tribes.

In the central North Caucasus (present day Stavropol Hills) a few Scythians remained after the general exodus. The sparse nomadic burials of the 4th-3rd centuries B.C. reveal no distinct Sarma-

tian traits. Jewelry and local Caucasian traditional weaponry in the burials reveal influence from the Scythian culture. A series of sites within the Stavropol Hills belonged to the sedentary population of the Scytho-Sarmatian period dating to the 4th-3rd centuries B.C. The Grushevskoye fortified settlement (*gorodishche*) near Stavropol dating to the 6th-3rd centuries B.C. is of particular interest. In the 4th-3rd centuries B.C., the level of occupation, the settlement was surrounded by a powerful fortress wall. That level has yielded many fragments of antique pottery, particularly amphorae of Rhodes manufacture (Ocherki istorii..., 1986, pp. 50-56). Material from other Stavropol settlements indicate that during the 4th-3rd centuries B.C.the local population had discontinued ties with the Scythian world and new ones were established with the Bosporus and Kuban River regions (Okhon'ko, 1988, pp. 255-258). The presence of stable sedentary groups occupying the Stavropol Hills impeded the early penetration of Sarmatian tribes.

The Sarmatians entered the North Caucasus on a large scale in the 3rd century B.C. This also coincided with commencement of their settlements in the North Black Sea region (Prichernomoriye..., 1985, pp. 190-193, 201-203, 383, 385, 396, 397). Based on findings, archaeologists confirm that in the 3rd century B.C. the Sarmatians pushed into the western and central North Caucasus. The majority of Sarmatian burials belong to the 3rd-1st centuries B.C. It is believed that the fall of the Grushevskoye fortified settlement was connected with the invasion of Sarmatian tribes in the early 3rd century B.C. It is probable that the Kazinskii Treasure, discovered in 1910 in the vicinity of Stavropol, was buried at that time. The treasure consisted of 19 gold artifacts whose total weight was almost 16 kg (Pridik, 1914, pp. 107-110). However, judging by the types of artifacts, which included many torques not typical of the Sarmatians, and by the decorative motifs, the treasure may well have been Scythian.

The settlement of massive groups of Sarmatians in the North Caucasus was felt in the territory adjacent the Azov Sea and along the right bank of the lower Kuban River. In this region over 400 Sarmatian cemeteries have been discovered. These comprise the majority of the Sarmatian cemeteries. The number of known burials in the central North Caucasus is much smaller. It is apparent that the Sarmatians lived in this region for more than three centuries up to the 1st century B.C. They also established close contacts with sedentary tribes who lived farther south.

With the passage of time the traditional culture of the Iranian-speaking Sarmatians of the North Caucasus suffered considerable changes. These changes were brought about by the influence of their local sedentary neighbors. For example, the Meots, a sedentary agrarian culture in the Kuban region, strongly influenced the Sarmatians living in the western North Caucasus. As a result of the indigenous contact the Sarmatians in the Caucasus developed a unique culture.

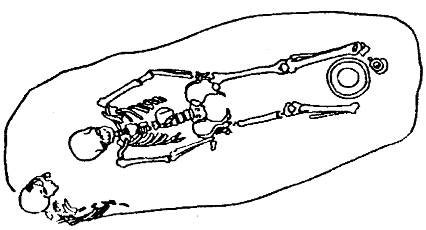


FIG. 1
BURIAL
RIGHT BANK OF LOWER
KUBAN RIVER

Sarmatian burials east of the Azov Sea and on the right bank of the lower Kuban River were generally placed in Bronze Age kurgans. Evidence has been found of funeral feasts which included offerings in the form of weapons and bridles. Grave pits are mainly oval or rectangular (Fig. 1). Pits with ledges and niches are less frequent (Kamenetsky, 1989, p. 250). More than 30 known catacombs are also characteristic of these Sarmatian burials. All of the catacombs are of one type. They have long, narrow entrances. The catacomb chamber is placed on the same axis as the entrance pit (Fig. 2).

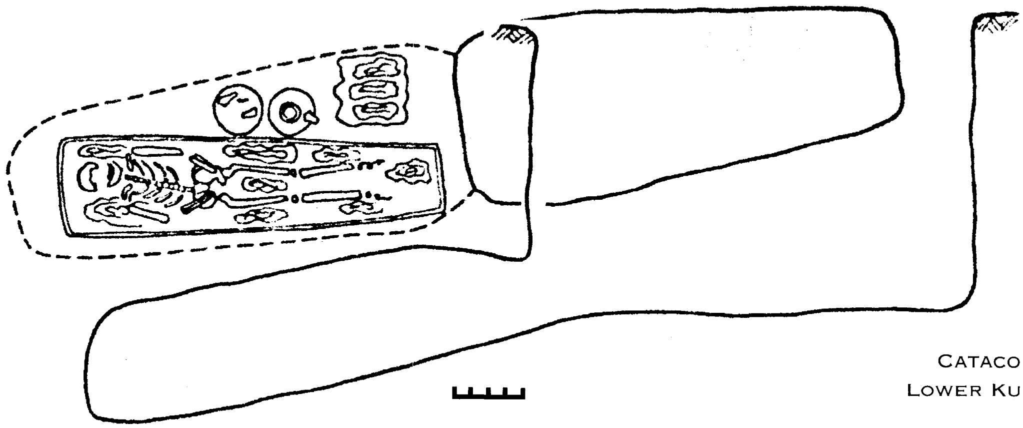


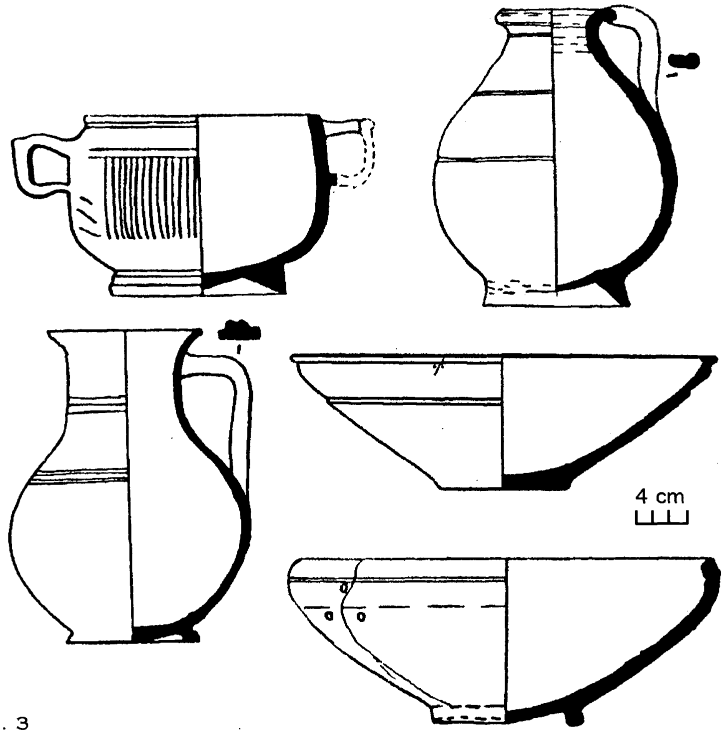
FIG. 2
CATACOMB BURIAL
LOWER KUBAN RIVER

The discovery of these catacomb burials in Early Sarmatian kurgans located in the North Caucasus allowed many researchers to place the origin of the catacomb tradition in the Caucasus. Although this type of catacomb burial became the most common style used by the Sarmatians, only 18 Sarmatian catacomb burials are known. Ten have been found in the southern Ural steppes and 8 have been found in the Volga River area. All are dated to the 3rd-2nd centuries B.C. (Moshkova, 1983, p. 24). In contrast, catacombs (usually termed earthen vaults) are well known throughout the Asiatic Bosporus as well as in the necropolises of Panticapaeum and Olbia as early as the 4th-3rd centuries B.C. The Greeks of the Bosporus conquered the indigenous population of the Asiatic Bosporus and subjected them to Hellenization by the 4th century B.C. (Grakov, 1971, p. 117). Many researchers believe that the catacomb tradition is of Greek origin coming from the Bosporus and Olbia (Korovina, 1987, p. 22; Parovich-Peshikan, 1974, p. 37). By the 4th-3rd centuries B.C. the Taman Peninsula and the western region of the North Caucasus were the center from which the custom of catacomb burials spread. It is possible that the catacomb tradition spread into the North Caucasus from this region.

In Sarmatian graves from the western North Caucasus, wooden structures have often survived. These include floors on the bottom of the burials and coffins. The burials are usually single and only an occasional double burial has been excavated. The dead are usually supine and only rarely on the right or left side or face down. Arms and legs were generally extended although the knees were occasionally bent. Head orientation was predominantly meridional and generally to the west.

At the bottom of the burial, traces of organic mat, charcoal, chalk, and arsenic as well as sacrificial food were generally found. The most common food was mutton, usually the front leg and shoulder and, less frequently, a leg with ribs. The food was often placed in the grave with an iron knife in a clay basin. Bones of other animals, such as of a horse, cow, or pig are found infrequently. Pebbles had been found frequently inside molded clay vessels (Kamenetsky, 1989, pp. 250-251).

Some burial rites have close parallels with those from the lower Volga River area and from neighboring regions in the North Caucasus. Other traits can be traced to the influence from the Meot Culture. These include placing the sacrificial food and a knife in a basin, sacrificing pigs, and placing vessels containing pebbles in the graves. Western orientation of the dead, a rite whose diffusion into the Caucasus is attributed to Sauromatian traditions, is also known from Meot 4th century B.C. and later burials (Kamenetsky, 1989, p. 251). The appearance of catacomb graves in Sarmatian kurgans in the North Caucasus can also be attributed to influence from the sedentary populations of the northwest-



ern Caucasus including the Kuban River region.

Meot influence is even stronger among the accompanying artifacts found in 3rd-1st century B.C. Sarmatian graves. Wheel-thrown vessels have the largest representation. These are generally gray burnished jars, pots, and mugs (Fig. 3) which are characteristic of the Meot 3rd-1st century B.C. pottery. Many had a circular support which was a common feature of Meot pottery to the turn of our era. Less characteristic vessels are those made from yellow and red clay and with horizontal handles (Fig. 4). These also have been found in Sarmatian graves located in

FIG. 3
SARMATIAN POTTERY WITH MEOT INFLUENCE

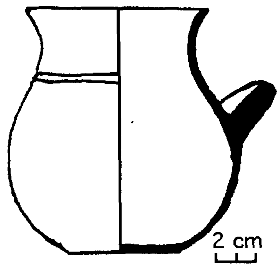


FIG. 4
CLAY POT WITH HORIZONTAL HANDLE

the northwestern Caucasus. Vessels from the Bosporus were included in grave finds. The predominant hand-modelled Sarmatian vessels are Meot forms of basins and jars. An additional pottery group from these graves has traits which reveal that it was produced by the sedentary population of the central North Caucasus. These are black burnished, have sand inclusions in the clay, and are decorated with zoomorphic handles (Fig. 5).

Weapons are frequently found in the graves. The most

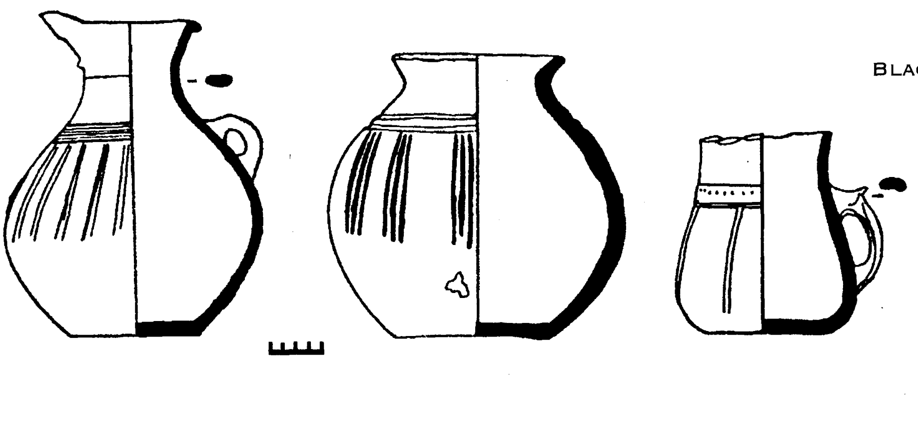


FIG. 5
BLACK BURNISHED POTTERY

common are arrowheads. Swords are found considerably less frequently. All swords have straight guards. They may be divided into two groups depending upon the shape of their pommels which are either crescent-shaped or circular (Fig. 6). Swords with circular pommels were introduced into the North Caucasus in the 1st century B.C. The same types of swords were also known among the Sarmatians of the Volga and Don river regions. These swords do not have metal guards. This is a characteristic feature of all early North Caucasus swords and daggers. With the exception of a single-edged sword from a grave dated to the late 3rd to early 2nd centuries B.C., all of the other swords found have been double-edged. Such swords and daggers are known among the Scythian material and also are found in burials of the central North Caucasus sedentary populations beginning in the Scythian Period (Abramova, 1969, p. 10). Only in rare instances have the graves yielded spearheads (Fig. 7), armament particularly characteristic of the Meots, not the Sarmatians.

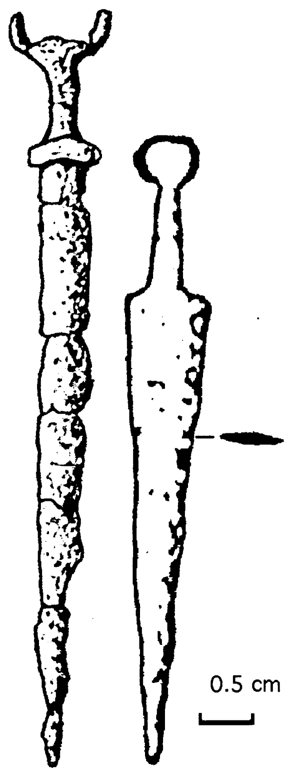


FIG. 6
SWORDS
(IRON)

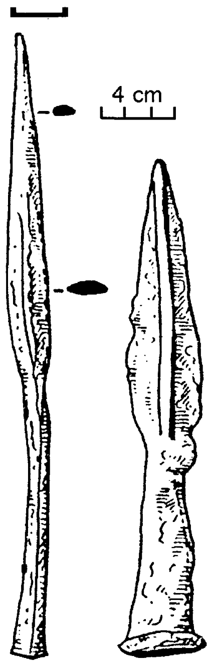


FIG. 7
SPEARHEADS
MEOT TYPE

Significant local influence is reflected in the forms of arrowheads. During the 3rd-1st centuries B.C. socketed iron arrowheads were prevalent (Fig. 8). These were characteristic Meot arrowheads to the 1st century A.D. In the 2nd century B.C. in the lower Volga and Don river regions the principal Sarmatian socketed arrowheads were replaced by tanged arrowheads. Socketed iron arrowheads in North Caucasian graves dating to the 2nd-1st centuries B.C. may be interpreted as a specific armament feature of this Sarmatian group. Socketed bone arrowheads, both tetrahedral and bullet-shaped, have been excavated. These types are well known in the archaeological sites of the North Caucasus dating from the Scythian Period. Quiver hooks have been found next to arrows (Fig. 9). Among the pieces of armor recovered are two Celtic helmets. One was iron and the other bronze in the Montefortino B configuration. Psalia and bridles with cross-shaped mouth-bits (Fig. 10) have also been found in burials. These artifacts are characteristic of Meot material.

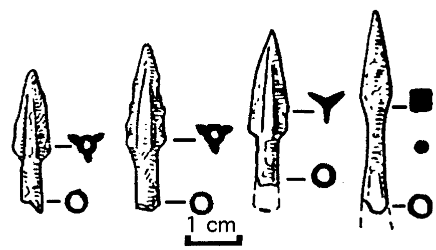


FIG. 8
SOCKETED ARROWHEADS
(IRON)

Mirrors played an important role in the Sarmatian burial rite. They are rather frequent among grave finds and have been found frequently in Meot graves. Prevalent among the Sarmatian mirrors are the Prokhorovo type, a large disk with a broad rolled rim. This type frequently has a small pin-like handle. This mirror type is also known in Sarmatian sites in the northwestern Caucasus (Fig. 11). However, in this region the ornamented Meot mirror, a flat disk, often with a cast or riveted handle (Fig. 12), was the most frequent. Other types of artifacts are not frequent. Those excavated include buckles and fibulae (Fig. 13). In the 2nd-1st centuries B.C. the fibulae were round. Oval fibulae and brooches are also known. Other jewelry that has been excavated includes bracelets often

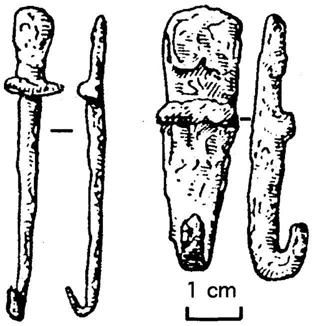


FIG. 9
QUIVER HOOKS

with overlapping ends made of round wire, pendants, Bosporus-type beads, and gold plaques which were sewn to clothing (Fig. 14). Occasionally bronze cauldrons were found in the tombs (Fig. 15).

Archaeologists have inferred from the materials that the wealth was distributed throughout this group of North Caucasus Sarmatians. In this steppe zone east of the Azov Sea, as distinguished from other areas of the North Caucasus, a greater number of rich Sarmatian graves dating to the 3rd-1st centuries B.C. have been excavated. In these burials gold and silver torques, bracelets, plaques sewn to clothing, imported glass, and bronze and silver vessels have been recovered. Phalera and military accoutrements included arrowheads, spears, and helmets.

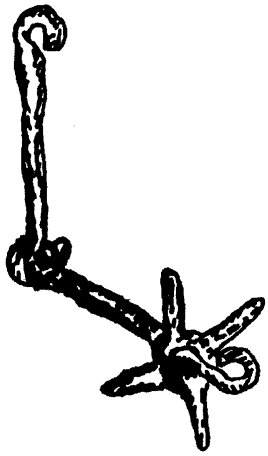


FIG. 10
BRIDLE BIT WITH
CROSS-SHAPED
CHEEKPIECE

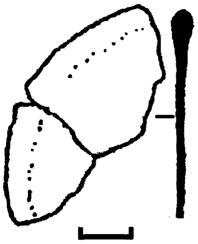
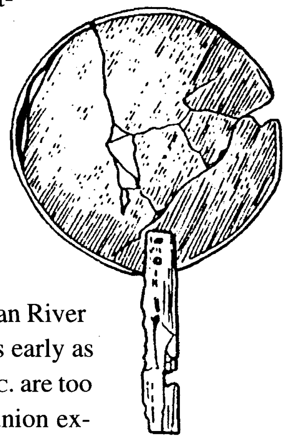


FIG. 11
MIRROR
PROKHOROVO TYPE
(BRONZE)

To summarize, during the last centuries of our era the territory east of the Azov Sea was the home of a group of Sarmatian nomads. Their culture was strongly affected by the traditions of sedentary Meot tribes. It is not possible to determine which Sarmatian tribal union recorded in written sources occupied this territory. The most plausible data about the location of Sarmatian tribes are noted by Strabo. He identifies the Aorsi along the Tanais (Don) River and the Siraki farther south ("those who go down south to the Caucasian mountains") on the Ahardeus (Strabo, XI, II, 1, XI, V, 8). The Ahardeus can probably be identified as the Kuban River. The generally accepted view is that the Siraki were located east of the Azov Sea on the right bank of the Kuban River.



Specific dates pertaining to the Siraki Union on the Kuban River are debatable. According to popular opinion, the Siraki Union existed as early as the 4th century B.C. Sarmatian sites of the 4th to the early 3rd centuries B.C. are too numerous in the eastern Azov Sea region to determine if a significant union existed at that time. The archaeological materials indicate that influence from the sedentary Maeotae tribes is characteristic of the Siraki Culture. "Meotization" of the Siraki tribes would have taken some time. It seems plausible that the Siraki Union with all its characteristic features would not have been formed prior to the 3rd-2nd centuries B.C. The greater portion of Sarmatian graves found on the right bank of the Kuban River are dated to the 3rd-2nd centuries B.C.

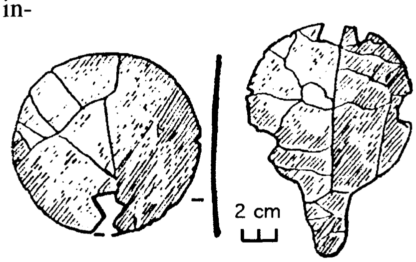


FIG. 12
MIRRORS
MEOT TYPE
(BRONZE)

The latest date for this group of Sarmatian sites can be placed at the turn of our era. Only an occasional single grave is found dating to the early centuries A.D. Apparently the center of the Siraki Union shifted at this time to the territory south of the Kuban River. In this region Sarma-

tian burials have been excavated which date to the early centuries A.D. The majority of rich Sarmatian burials are located in the Kuban and Laba interfluvial. These date to the beginning of the 2nd half of the 1st century B.C.

The Sarmatian tradition of placing burials in existing kurgans is also found in the central North Caucasus. One of the main migratory routes taken by nomadic tribes to reach the Transcaucasus through the Daryal passage was across the Stavropol Hills and Kabarda. The population of the area was characterized by polyethnicity and changing cultural traditions. Before the 3rd century B.C. incursion of Sarmatians the territory had been inhabited by nomadic and sedentary tribes who maintained separate cultural traditions. Probably because of these tribes the Sarmatian settlements were not as large as those in the more western areas of the North Caucasus.

In the 2nd century B.C. cemeteries such as those at Nizhne-Dzhulatskii and Chegemskii (Abramova, 1972; Kerefov, 1985) began to appear in the southern Kabarda region. This leads researchers to think that previous nomadic local tribes metamorphosed into a sedentary culture. The predominantly catacomb sepulchral structures found in these cemeteries were not typical burial architecture for the previous local sedentary population. Their ground graves were proportionally fewer in the cemeteries. In the Kabarda cemeteries, graves were sunk into the ground. This practice began about the middle of the 2nd century B.C. and continued to be used until the 2nd to early 3rd centuries A.D. The most numerous of these cemeteries date to the 2nd-1st centuries B.C. This period is characterized by an unusual diversity of the sepulchral structural types and accompanying artifacts. The pottery is particularly diversified. In the first centuries A.D. a number of stable traits were established. The absence of stability indicates that the earlier period was culturally formative. It appears that in the Kabarda territory the ground cemeteries containing catacomb graves were not made by invading groups with stable traits, but rather by mixed local populations developing under extremely unstable cultural conditions.

This concept is substantiated by the archaeological material from early period cemeteries. In contrast to the northwestern North Caucasus where one type of catacomb burial was dominant, the Kabarda central burials were characterized by great diversity in their sepulchral structures. Grave pits were sunk into the ground and different types of catacombs were used (Fig. 16). Collective graves containing 6 to 13 skeletons were prevalent in the catacomb burials. Orientation of the dead varied. Southwestern, southeastern, and northwestern directions were predominant. Organic mats, evidence of the use of green clay slip, and powdered or chunks of chalk and coal frequently were found in the bottom of catacomb

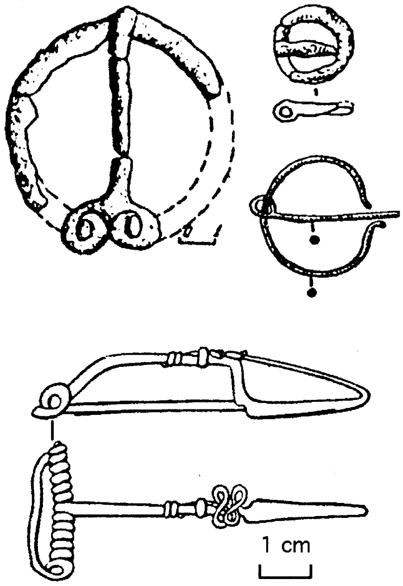


FIG. 13
BUCKLES AND FIBULAE

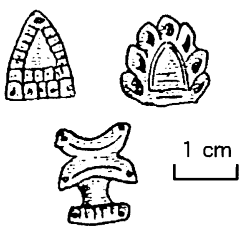


FIG. 14
PLAQUES (GOLD) SEWN ON CLOTHING

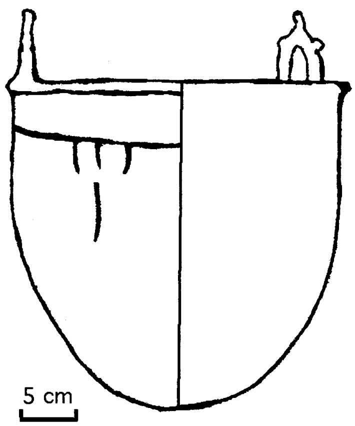


FIG. 15
CAULDRON (BRONZE)

chambers (Abramova, 1989, pp. 272-276). Many graves contained pebbles which were generally placed in specifically shaped vessels (Fig. 17). Charcoal and large iron chain links were also placed in these containers (Fig. 18). Vessels containing pebbles and chain links are typical of the local Caucasian cultic practices. Remains of sacrificial food are frequent finds. The most common was mutton placed in a basin with an iron knife. This custom is known in the central North Caucasus as early as the 1st half of the 1st millennium B.C. and especially in Scythian sites dating to the 6th-5th centuries B.C.

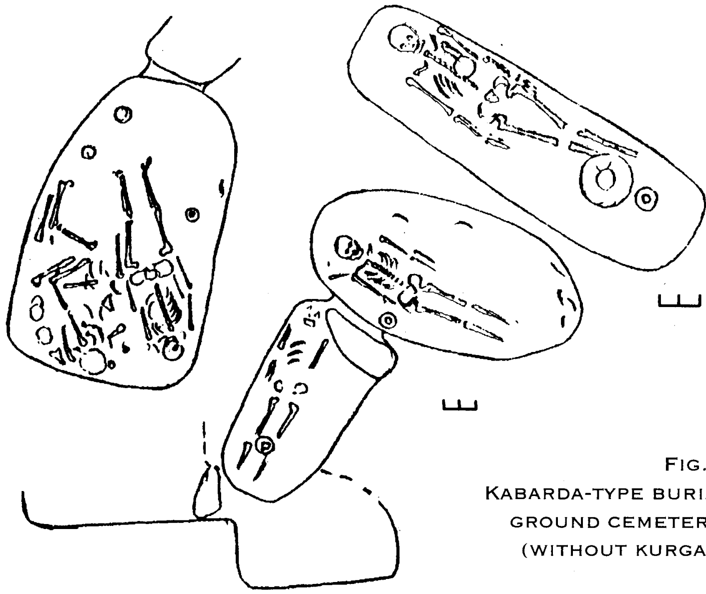


FIG. 16
KABARDA-TYPE BURIALS
GROUND CEMETERIES
(WITHOUT KURGANS)

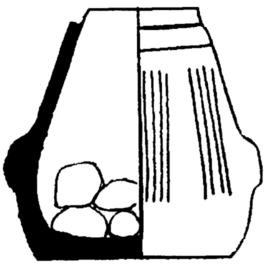


FIG. 17
VESSEL CONTAINING
PEBBLES
KABARDA

Among the sepulchral artifacts ceramics are the most diverse. The quality of the pottery is not high. Vessels were generally hand-modelled but a relatively large number show indications of having been modelled on a potter's wheel. Marks of support on the bottom or surface smoothing are common. The gray or black surfaces were often burnished. Sand or fine particles of lime tempered the clay. Firing was uneven. The majority were locally produced although there is a series of red clay vessels from the Bosporus. The vessels are diverse in form and include jars, bowls, mugs, basins, and pots (Fig. 19). A significant group of differently shaped vessels had ritual significance (Figs. 17-18). Those that held pebbles and chain links are included in this group.

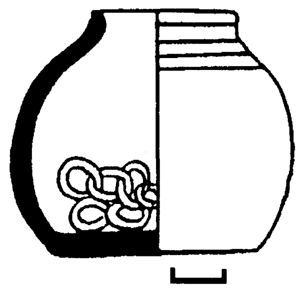


FIG. 18
VESSEL CONTAINING
CHAIN LINKS
KABARDA

Based upon classification of types, forms, clay composition, and ornamental elements, the closest analogies to ritual vessels are found in Caucasian ceramics of an earlier period (Abramova, 1979, 1984). These vessels may be considered local either by origin of type or production.

Frequently, armaments are found in the graves. Their composition has changed as compared to those of the Scythian period. The number of graves with arrows increases while those containing swords, daggers, and spears decreases. Short swords with sickle-shaped or annular pommels are predominant and a minimal number have antenna-type finials (Fig. 20). Guards are straight. One group of swords has no guards. An occasional spearhead is found (Fig. 21). Trilobed socketed

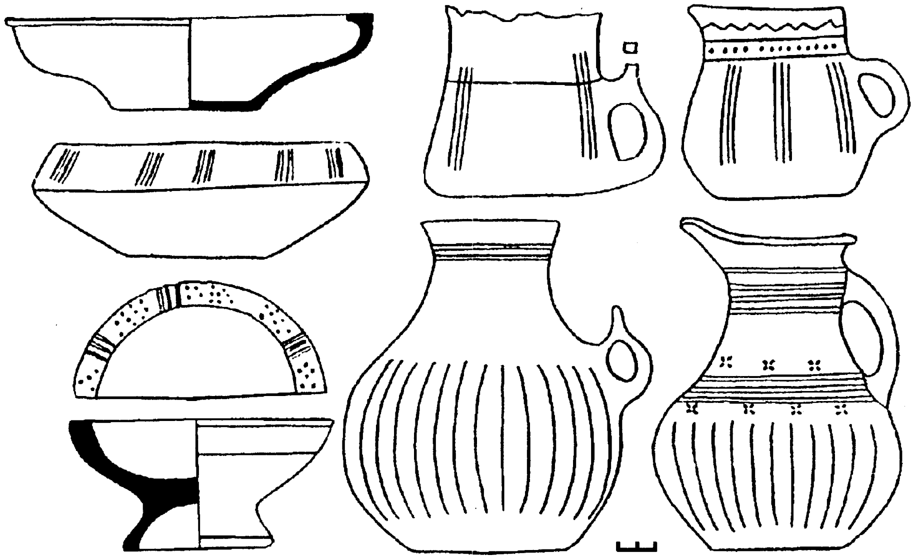


FIG. 19
POTTERY
KABARDA TYPE

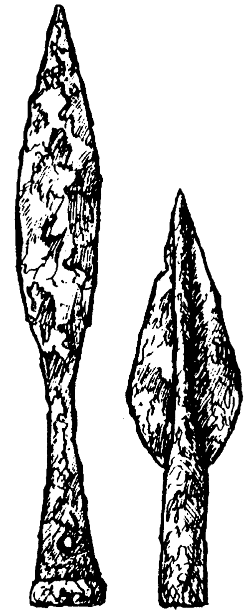


FIG. 21
SPEARHEADS

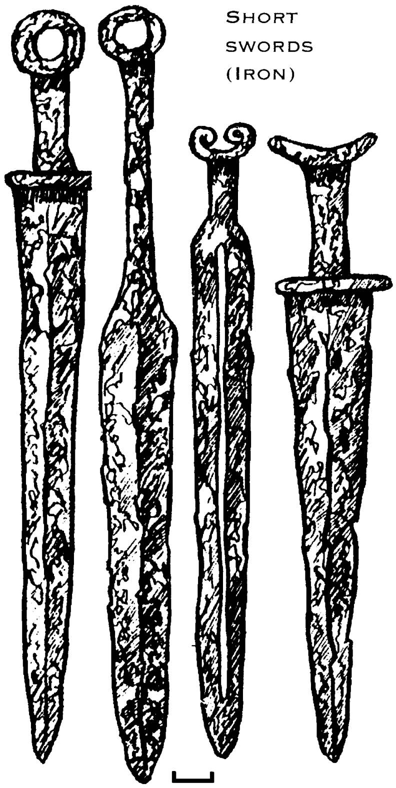


FIG. 20
SHORT
SWORDS
(IRON)

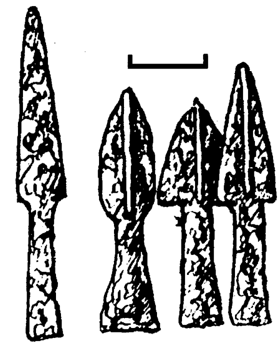


FIG. 22
ARROWHEADS
(IRON)

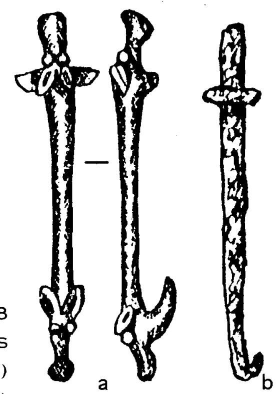


FIG. 23
QUIVER HOOKS
A. (BRONZE)
B. (IRON)

iron arrowheads prevail although occasionally bullet-shaped arrowheads are found (Fig. 22). In some tombs there are 50 to 80 arrowheads. The quiver hooks were found together (Fig. 23). Annulated bridles have either cross-shaped bits (Fig. 10) or two-holed bits. Iron and bronze buckles have unarticulated tongues (Fig. 24). Bronze and iron pins are characteristic of those found in the mountainous central Caucasus. Fibulae are of the Middle Laten type (Fig. 25). Jewelry is diverse, not numerous, and include torques

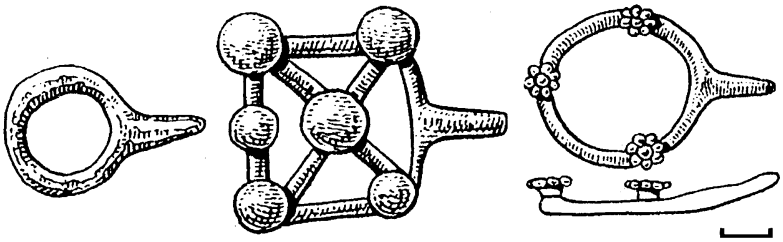


FIG. 24
BUCKLES WITH UNARTICULATED TONGUES

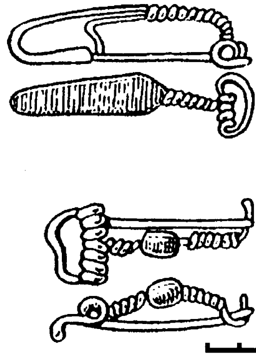


FIG. 25
FIBULAE
MIDDLE LATEN TYPE

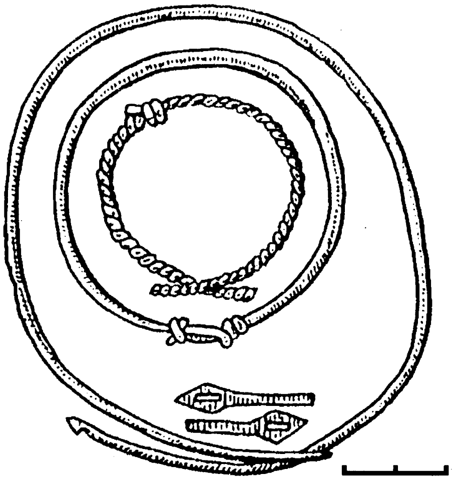


FIG. 26
TORQUES AND BRACELETS

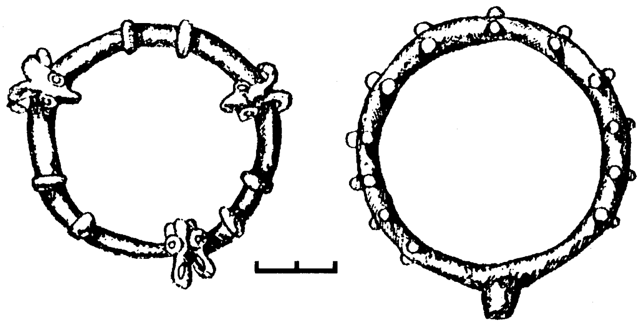


FIG. 27
ANNULAR-SHAPED PENDANTS

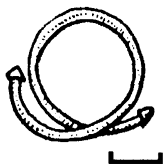


FIG. 28
SPIRAL PENDANT

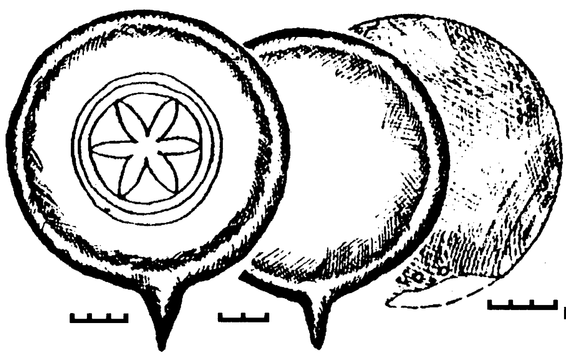


FIG. 29
PROKHOROVO TYPE
MIRRORS
(BRONZE)

and bracelets (Fig. 26). Later dated pendants (Fig. 27) include gold, silver, and bronze spiral forms (Fig. 28). A great number of Late Hellenistic type beads were excavated. Fine monochromatic beads were sewn on garment edges. Larger polychrome glass, carnelian, jade, amber, chalcedony, and rock crystal beads were made into necklaces. Bronze mirrors are commonly found in the burials. The Sarmatian Prokhorovo type predominates while smooth disks are less frequent (Fig. 29).

Both cultic burial rites and grave artifacts display traits characteristic of the earlier Scythian Period sites of the North Caucasus. The population that left these cemeteries were Sarmatians and the descendants of the sedentary population who had inhabited the central North Caucasus during an earlier period. This opinion is supported by evidence found at Khutor Khersonka, the burial ground located in the Stavropol Hills. The Khersonka Cemetery in the North Caucasus contained both catacomb burials and collective graves. The predominant opinion in archaeological literature is that the origin of the catacomb tradition in the Caucasus should be sought in Sarmatian sources. However, the Khutor Khersonka burial ground dates to the 4th-3rd centuries B.C. It contains stone sepulchers with dromoi at right angles to the longer axes of the chamber. Artifacts found in the Stavropol region burials date to the 5th-4th centuries B.C. (Belinsky, 1990). On this basis it is assumed that the formation in the North Caucasus of the unique catacomb structure could have occurred without Sarmatian participation. It may have developed prior to the general Sarmatian settlement in the territory.

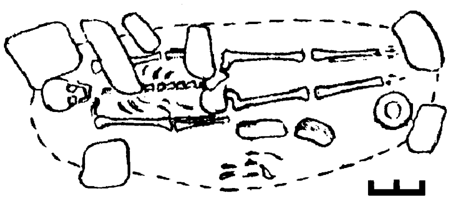


FIG. 30
OVAL BURIAL PIT
SARMATIAN
CENTRAL PRE-CAUCASUS

The majority of the secondary Sarmatian graves placed in kurgans in central North Caucasus are dated to the 3rd-1st centuries B.C. This is the same time period as the graves located in the northwestern Caucasus. However, in the latter region, burials are more dispersed and fewer in number than those found on the right bank of the Kuban River.

Many traits of the sub-kurgan North Caucasus graves are similar to the Sarmatian burials in the northwestern Caucasus. As in the latter case, secondary graves placed in kurgans are predominant. Similar rectangular and oval grave pits are the norm (Fig. 30). The *podbois* (niches) and catacomb burials occurred only in isolated cases. The catacombs are the same type as those in the Kuban River region (Fig. 31). Position and orientation of the deceased are also predominantly latitudinal. Orientation to the west is prevalent. The graves often contain remains of sacrificial food. This is generally mutton placed in a basin often along with an iron knife. On the bottom of some graves the remains of organic mats made from cane, felt or birch bark were found. In isolated cases pieces of charcoal and chalk or powdered material were included in the burial.

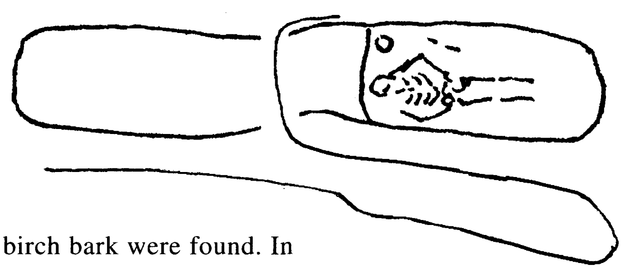


FIG. 31
CATACOMB BURIAL PIT

In addition to the traits similar to those of the Siraki sites in the Kuban River region, Sarmatian graves of the central North Caucasus also display some significant differences. This is especially noticeable in the accompanying artifacts. Among the Kuban River Siraki Meot ceramics are prevalent while in the central North Caucasus this trait is completely absent. The

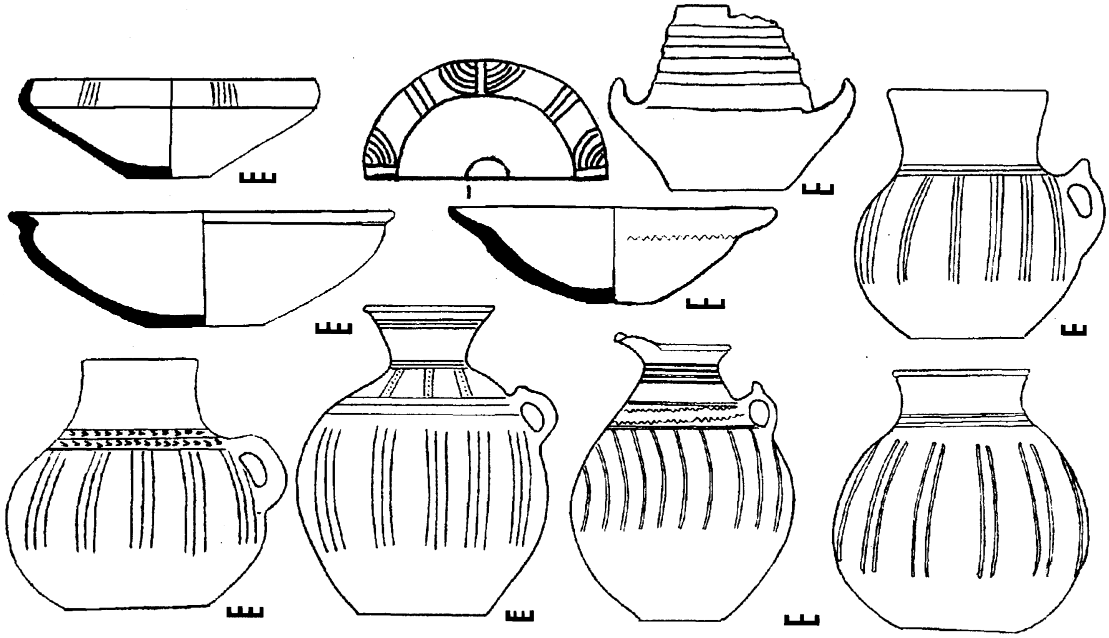


FIG. 32
KABARDA TYPE POTTERY
NORTH CAUCASUS

pottery of the North Caucasus region includes forms that are known in the sedentary Kabarda sites (Fig. 32). The predominantly Prokhorovo type mirrors, buckles with unarticulated tongues, and minimal jewelry and pendants (Fig. 33) are similar to the finds from the Kabarda burials. They differ only slightly from the artifacts found in the Siraki graves in the Kuban River area. As in other areas of the North Caucasus local influence is apparent in armament types. This is particularly evident in the swords found without guards, the spears, and the socketed iron arrowheads (Fig. 34).

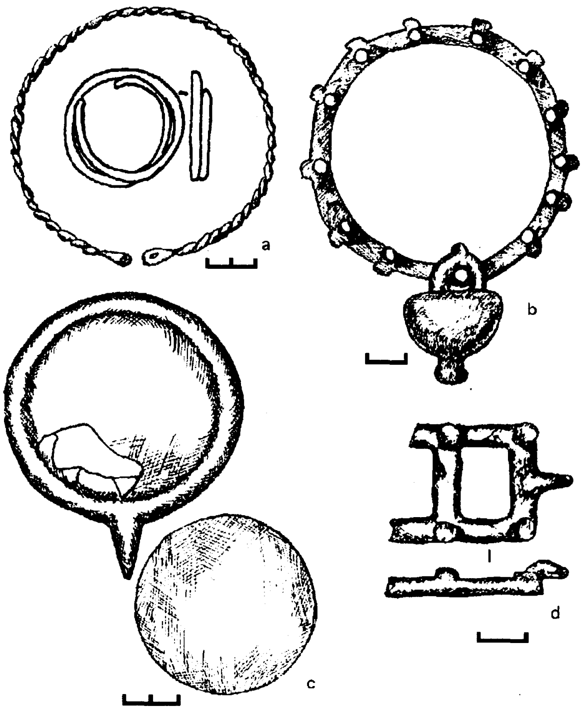


FIG. 33
A. BRACELET AND PENDANT
B. PENDANT
C. PROKHOROVO TYPE MIRROR
D. UNARTICULATED BUCKLE

The Sarmatian cemeteries of the central North Caucasus are unusual because they do not contain the rich grave goods and imported artifacts characteristic of the Kuban Siraki burials. A conspicuous exception are the unique rich graves found on the left bank of the Terek River near Komarova village in the vicinity of Mozdok. A female was buried in clothes embellished with sewn-on gold plaques. She wore gold spiral bracelets whose terminals depict three rams (Fig. 35). Adjacent to a gold chain necklace terminating with horned lion heads lay a golden ram figurine (Gidzhrati, Nagler,

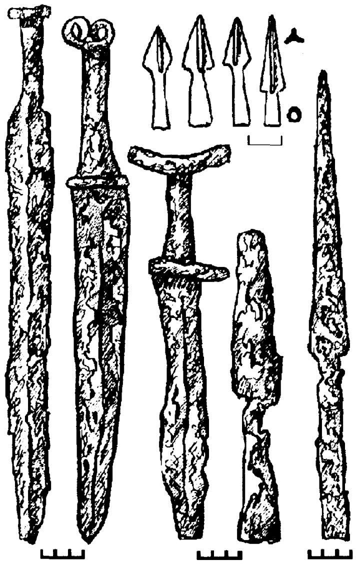


FIG. 34
SWORDS AND ARROWHEADS
SIRAKI TYPE

1985). Some artifacts, such as plaques depicting a human face, a snake-legged goddess, and a hare (Fig. 36) are included among the Greek-Sarmatian jewelry which survived here until around the 2nd century B.C. Gold jewelry from other sites, such as Pavlodolskaya station, is also in this group of finds (Vinogradov and Berezin, 1985, pp. 49-52). These artifacts reveal the influence that the local Caucasian cultural traditions and the art tradition of the Scythian jewelers had upon the nomadic Sarmatian material culture.

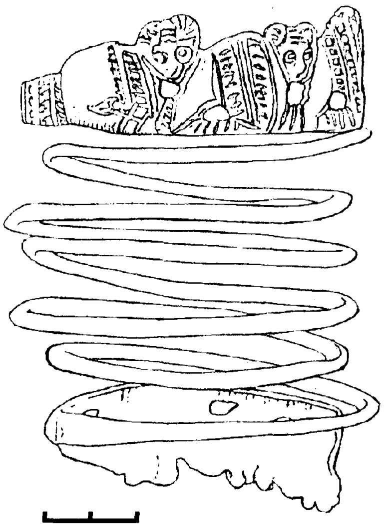


FIG. 35
SPIRAL BRACELET WITH RAM TERMINALS
NEAR KOMAROVA VILLAGE (GOLD)

Analyses of the Sarmatian material culture from the central Caucasus reveal that these nomads were on the periphery of the Siraki Union. The diverse North Caucasus Sarmatian tribes lived within a discrete cultural sphere. They were influenced by their contacts with sedentary populations. The Kuban River Siraki interacted with the Meots while the central North Caucasus Sarmatians interacted with the sedentary Kabarda.

In the 1st century A.D. the political situation in the North Caucasus changed considerably. Presumably, this change was brought about by the Sarmatian Alans who by this time also entered the historical period. The 1st century A.D. was marked by the presence of a new group of Sarmatian tribes in the lower Don River region. These Sarmatians often buried their dead in large square pits placed in the center of the barrow. The skeletons frequently were positioned diagonally in the pit. This custom occurred primarily at Kalmykia in the northeastern North Caucasus. The southern border of such sites pass near the village of Achikulak in the eastern part of the Stavropol area. No such sites have been discovered farther south or in the western North Caucasus east of the Azov Sea.

Alan activity seems to have occurred in the western and central North Caucasus. This caused the stable population to be disrupted. In the 1st century A.D. nomad sites essentially disappeared from these territories. The nomads were either assimilated by new waves of Sarmatian tribes or joined Sarmatian campaigns. The sedentary population of the time also decreased. This is especially noticeable in the areas traversed by the Alans. The sedentary population of the Stavropol Hills diminished as indicated by the fact that the Khutor Khersonka Cemetery has no material dating to the 1st century A.D. At the same time, in the isolated areas at Kislovodsk and Zheleznovodsk in the Pyatigoriya ter-

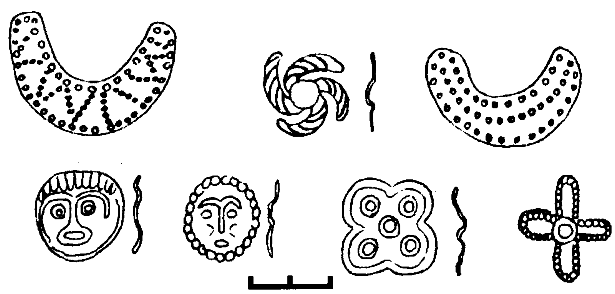


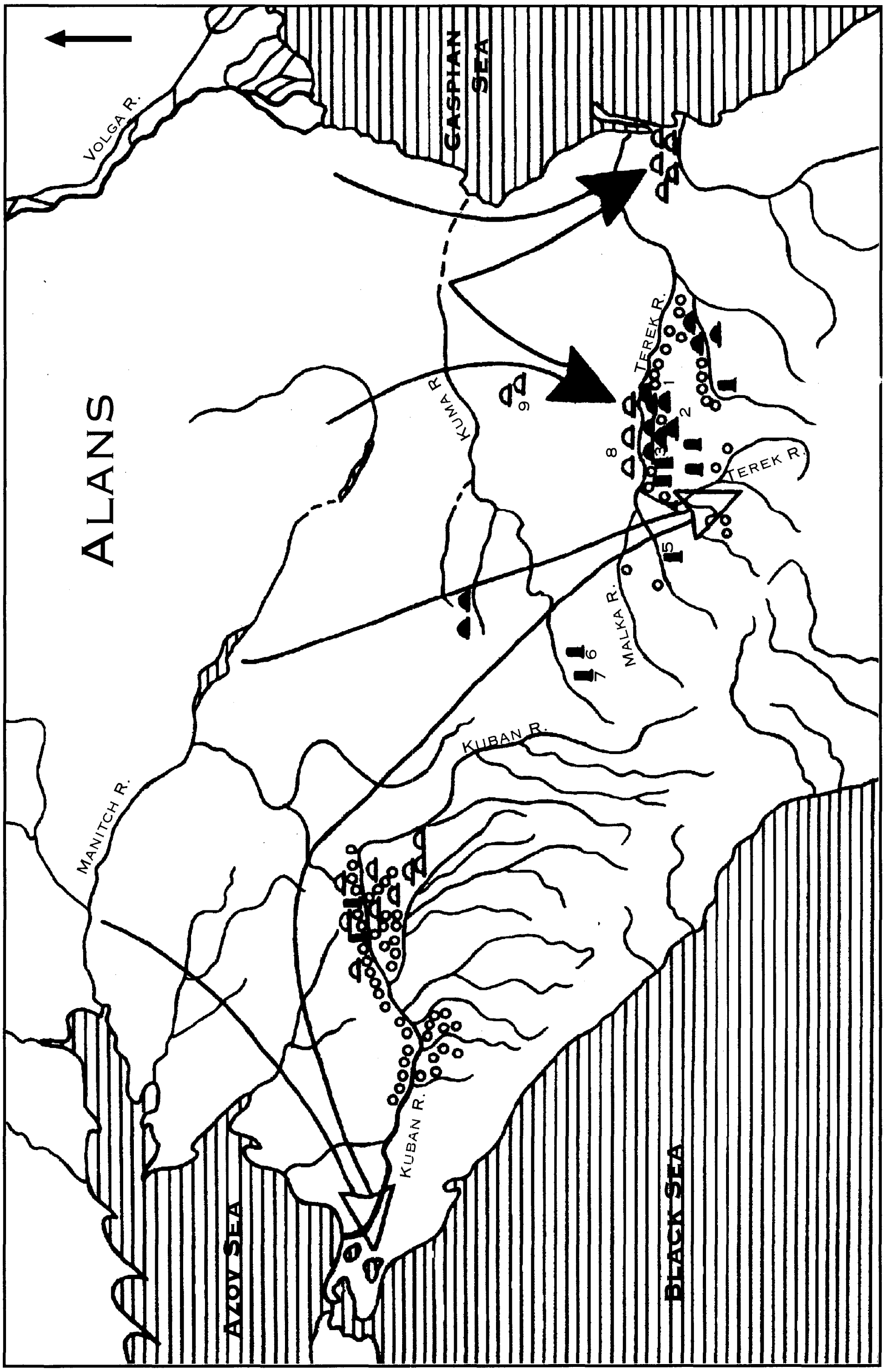
FIG. 36
ORNAMENTAL PLAQUES

- ALAN MOVEMENTS, 1ST - 3RD CENTURIES A.D.
- ALAN SETTLEMENTS, 2ND - 3RD CENTURIES A.D.
- KURGANS GROUP I, BEGINNING OF THE 3RD CENTURY A.D.
- KURGANS GROUP II, END OF THE 3RD - 4TH CENTURIES A.D.
- CATACOMBS IN GROUND CEMETERIES
- FORTIFIED & UNFORTIFIED SETTLEMENTS

MONUMENTS MENTIONED IN THE TEXT

1 - BRATSKOE
2 - OKTYABR'SKII
3 - VINOGRADNAYA
4 - NIZHNII DZHULAT
5 - CHELGEM
6 - KISLOVODSK
7 - ZHELEZNOVODSK
8 - MOZDOK
9 - ACHIKULAK

KEY TO MAP 9. NORTHERN CAUCASUS IN THE 1ST - 4TH CENTURIES A.D.



Abramova

Map 9. Northern Caucasus in the 1st - 4th Centuries A.D.

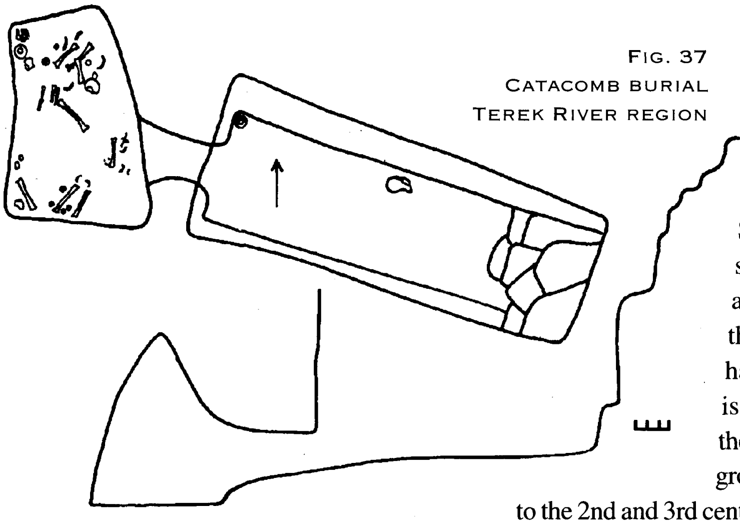


FIG. 37
CATACOMB BURIAL
TEREK RIVER REGION

ritory (Map 9), new catacomb cemeteries appeared (Abramova, 1987; Runich, 1983). It appears that these changes should be attributed to the appearance of the Alans in the Caucasus.

During the 2nd-3rd centuries A.D. changes in the North Caucasus were even greater. Late Sarmatian sites, particularly in the Kalmyk steppes, are attributed to the Alans. These sites are also found in the lower Don River region and the eastern North Caucasus. The areas to the south have not thoroughly been studied. Nevertheless, it is presumed that the Alan influence stretched to the Terek and Sulak rivers. Here, numerous burial grounds with hundreds of kurgan embankments dated to the 2nd and 3rd centuries A.D. have been discovered. These are located on the left bank of the lower reaches of the Sulak River (Map 9).

These cemeteries contained both catacomb graves and graves with niches (Derzhavin, Malyshev, et al., 1988, p. 122). The material culture, especially the ceramics, demonstrates some influence from the Late Sarmatian culture. There is also considerable influence from populations living in Daghestan. A vast kurgan cemetery, now almost completely ruined, existed in the Mozdok area. Here some catacomb and bay graves have been registered as well. Deformed skulls were found. Many 2nd-3rd century A.D. ceramics were in the burials (Piotrovsky, 1941, pp. 240-247). These finds indicate that the Alans made a permanent home in the eastern North Caucasus. In central and western North Caucasus such sites are absent. Some researchers link the rich kurgans of the "Golden Cemetery" on the Kuban River to the Alans. However, these burials along with ground cemeteries were adjacent to Meot fortified settlements. The upper time limit of these cemeteries is the late 2nd to early 3rd centuries A.D. This is the period of greatest Alan activity in the Kuban River region. This area seems to have been a zone of intensive activity. The Alan tribes constantly marched not only toward the Transcaucasus but also to the Asiatic Bosporus. Researchers connect the diminishment of the sedentary population on the left bank of the middle Kuban River with the Alan expansion (Anfimov, 1958, p. 71). Alan expansion probably also accounts for the sharp decrease in the Kabarda sedentary population in the central North Caucasus. No ground cemeteries have been found in the plains and foothills dating from the late 2nd to early 3rd centuries A.D. As evidenced by a chain of fortified settlements, a considerable group of people arrived in the area south of the Terek River. Ground catacomb cemeteries located behind the Terskii and Sunzhenskii ridges belong to this population. The catacombs in these cemeteries have a similar design. The entrance pit is at a right angle to the longer axis of the chamber. This is also the predominant grave type in the Kabarda ground cemeteries during the 2nd to early 3rd centuries A.D. Researchers suggest that during the early centuries A.D. the populations located south of the Terek River underwent a rapid social development. This resulted in the formation of an elite military nobility. This is confirmed by evidence found within the extensive kurgan cemeteries dated to the 2nd half of the 3rd century A.D. and especially to the 4th century A.D. These cemeteries are located on the right bank of the Terek River and along the lower reaches of the Sunzha River (Munchayev, 1965, pp. 179-184; Abramova, 1975, pp. 213-227; Gabuyev, 1985). The smaller kurgans were tightly grouped

around the larger burial mounds. They occasionally were placed so close together that they nearly merged.

Each kurgan contained one catacomb (Fig. 37). Generally one person was buried although occasionally there were two. Orientation of the catacomb architecture was standard in the diverse regions. On the right bank of the middle Terek River entrance pits were oriented latitudinally and their chambers were oriented meridionally. Only minimal grave goods were found such as bronze and silver fibulae and buckles (Fig. 38). These artifacts allowed the kurgan to be

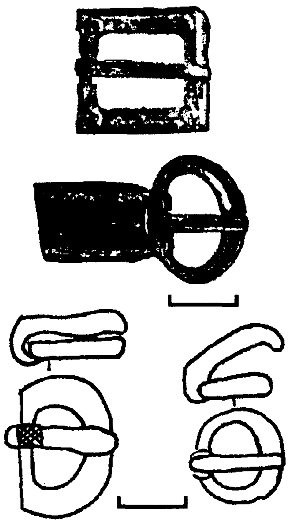


FIG. 38
BUCKLES WITH ARTICULATED TONGUES
(BRONZE AND SILVER)

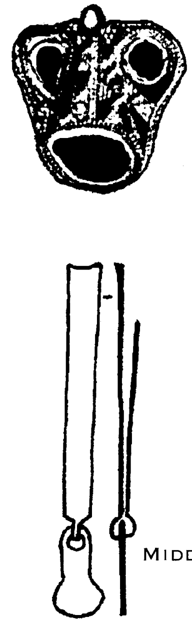
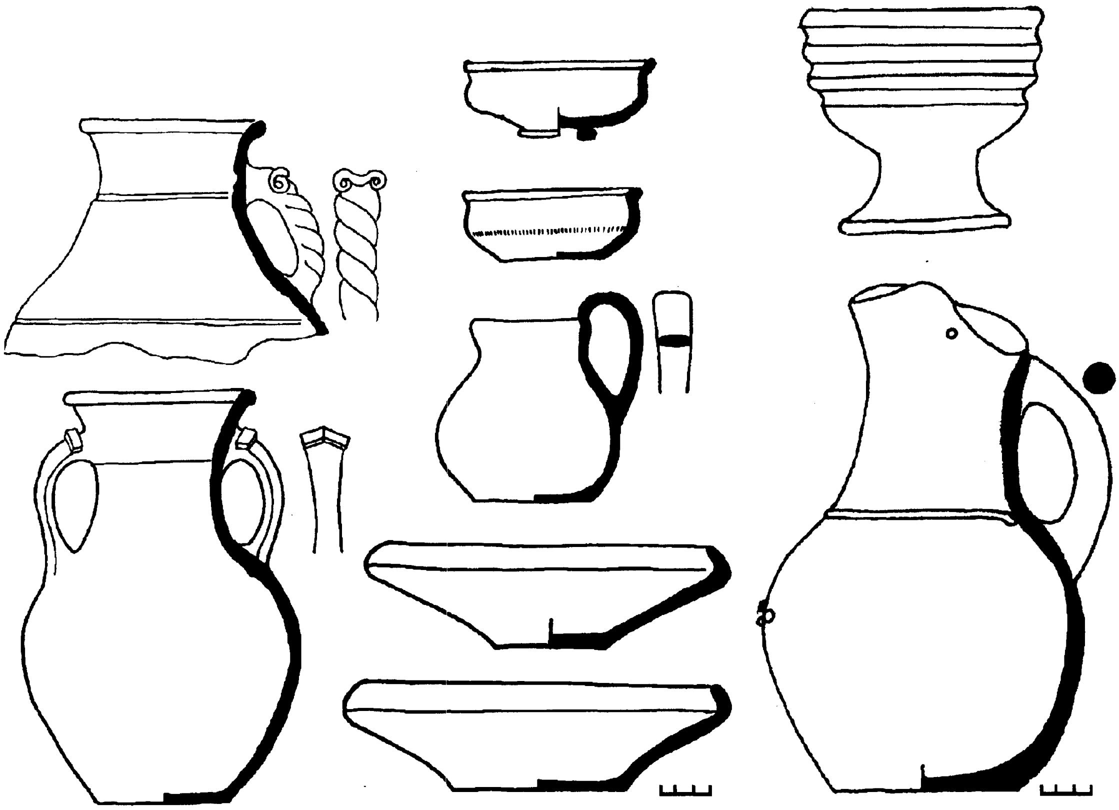


FIG. 39
PENDANTS
MIDDLE TEREK RIVER

FIG. 40
CERAMIC VESSELS
MIDDLE TEREK RIVER



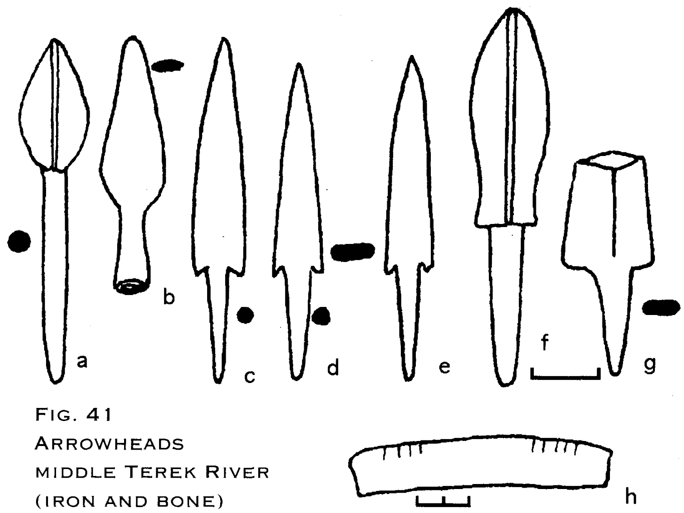


FIG. 41
ARROWHEADS
MIDDLE TEREK RIVER
(IRON AND BONE)

dated. Some burials contained small gold plaques sewn to clothing and gold and silver pendants (Fig. 39). Each catacomb contained between six and nine vessels in the form of jars, basins, mugs, and pots (Fig. 40). These are the same shape as those from the previous period. They were wheel-thrown, frequently burnished, and fired gray. Based on some data, researchers believe all of the ceramics were made in the fortified settlements south of the Terek River. One grave yielded a complete set of iron and bone arrowheads and the bone reinforcing plaques for a bow (Fig. 41). Some catacombs contained horses buried with their harnesses. A few fragments of the plaques attached to cross belts have survived. In one case, a set of bronze plaques covered with gold foil together with remnants of leather belts was found. The plaques are decorated with stamped relief ornamentation (Fig. 42).

Although all the catacombs had been robbed it can be assumed that the larger kurgans belonged to the military aristocracy. Burials could include members of the Alan tribes migrating north across the Terek River. The sites in the eastern North Caucasus are dated to not later than the end of the 3rd century A.D. The majority of the sub-kurgan catacombs located on the right bank of the middle Terek River belong to the 4th century A.D. These vast catacomb cemeteries are an unusual type for the North Caucasus. The question of their origin has not yet been resolved. It is assumed that the formative center for such sites was located in the middle reaches of the Terek River. After the cultural formation of the people who built these cemeteries, some of the groups began to migrate into the steppes. Unlike the Terek River area, in the steppes the sites are isolated and are placed among Bronze Age kurgans. Such kurgans are known in the Stavropol Hills area (Romanovskays, 1986). In the southern Rostov province a few dozen catacombs in kurgans have been excavated. Many of these are conspicuous for their burial rites, their accompanying artifacts, and particularly for their ceramics which show obvious influence from the Caucasus.

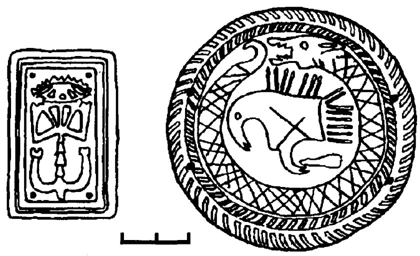


FIG. 42
BELT PLAQUES
MIDDLE TEREK RIVER
(GOLD FOIL OVER BRONZE)

The occasional sub-kurgan catacombs of the 2nd half of the 3rd and 4th centuries A.D. discovered in the middle Terek River area are the only monuments attributed to the nomad population of the time period. These burials differ sharply from the burials of the Late Sarmatian culture left by the Alans in the 2nd-3rd centuries A.D. These findings lead researchers to the conclusion that during the 2nd-3rd centuries A.D. the North Caucasian steppes were inhabited by a more ethnically diverse population than that of the 3rd and 4th centuries A.D. The early group of graves on the Kalmykia territory can be associated with the Alan tribes of Sarmatian origin. The late group of sub-kurgan

catacomb burials discovered on the Terek River and in the Stavropol Hills region displays many traits. These include the catacomb types and shapes and the ceramics which are similar to those found in sites belonging to the early Medieval Alan culture in the North Caucasus. These sub-kurgans are associated with the formative stage of the North Caucasian Alans.

According to archaeological material it is apparent that the Sarmato-Alans nomads documented by antique works, and the North Caucasian Alans reported on by early Medieval Armenian, Byzantine, and Syrian writers are not the same people. A faction of the Iranian-speaking nomadic tribes of the North Caucasian Alans also included a considerable admixture of the local North Caucasian population. The percentage of the local population admixture increased as the Iranian-speaking tribes advanced toward the mountains.

The kurgan cemeteries with catacomb traditions emerged in the 2nd half of the 3rd and the early 4th centuries A.D. They continued on a grand scale in the middle Terek River region and in the North Caucasus steppes until the Hunnic invasion of the late 4th century A.D. After the Hun invasion these burial mounds are found only south of the Terek River. There they are located closer to the mountains. The burial mounds are characteristic of the eastern variant of the early Medieval Alan culture located in the North Caucasus.

CHAPTER 12

SARMATIANS

SOME CONCLUDING REMARKS

MARINA G. MOSHKOVA

In archaeological literature the words "early nomads" or "ancient nomads" (Khazanov, 1973, p. 9) are used to designate groups of people specifically associated with tribal economic activities. The term is applied to all of the nomadic populations of the Eurasian steppes. In ethnographic literature nomadic cattle breeding is classified as a cultural-economic type. The natural surroundings are considered one component. The territory populated by the Sauro-Sarmatian nomads from the 6th century B.C. through the 4th century A.D. was vast. It stretched from the Danube River east to the southern Ural steppe region. The climatic conditions within this immense region were not uniform. These conditions proved instrumental in the formation of a concrete nomadic economy in each distinct region. The sedentary or semi-sedentary populations living in the surrounding regions were also instrumental in affecting nomadic trade, economy, and frequently, the socio-political climate. All of these factors were responsible for the specific character of the nomadic communities. The history of these nomadic peoples cannot be fully appreciated outside the context of their ecological situation and their external relations.

Initially, that is, prior to their western and southwestern expansion sometime before the 3rd century B.C., the Sauro-Sarmatian tribal territories included the most arid steppe and semi-desert regions of the southern Ural steppes, the Trans-Volga region, and the Volga-Don interfluvial. Agriculture without irrigation was essentially impossible in these areas. In the absence of even a subsidiary form of agriculture the populations were nomadic. They engaged in extensive cattle breeding based on year-round grazing. In the absence of permanent settlements in these regions it seems probable that the nomads migrated along invariable routes. They had permanent winter headquarters. Complex studies conducted in Kazakhstan, the southern Ural steppes, and the Trans-Volga regions indicate that the nomadic routes ran a few hundred kilometers both in the meridional and latitudinal directions or in a radial-circular pattern. It is also possible that they could have migrated from the southern Ural steppe area to the middle reaches of the Syr Darya River and to the Sarikamish Depression. There they would have maintained winter quarters and would have had contact with

other nomads and sedentary populations of Central Asia. At the northern borders the Sauro-Sarmatian nomads maintained intimate economic relations with the sedentary forest-steppe populations. The concentration of burial sites along the river valleys, especially along the Volga River and in the Trans-Volga steppes, indicates that there were stable wintering locations. These seem to have belonged to individual tribal and clan groups.

Because there were no settlements in the lower Volga River region and in the southern Ural steppes the only source of information about tribal production activities is represented by funerary artifacts. The potter's wheel was unknown among the nomadic populations. Handmade pottery was produced by local nomads. Domestic pursuits, in addition to the hand-modelled pottery production, included bone carving, leather dressing, stone cutting, wood processing, and weaving. It hardly seems possible that they were engaged in bronze or iron metallurgy, much less in mining ore or in smelting metals. It is possible that they could have produced most simple bronze and iron items such as rings, plaques, knives, and awls. They would have used imported raw materials or would have melted objects for recasting. The majority of metallic artifacts, such as weapon, horse harnesses, cauldrons, jewelry, and bronze mirrors probably were produced on Sarmatian's orders by the sedentary populations living adjacent to the nomads. This supposition seems more probable in light of the fact that in the Trans-Ural forest-steppe region some settlements of the Itkul Culture (7th-3rd centuries B.C.) have yielded numerous remains of metallurgical production. Other metallurgical centers of nearly the same significance existed on the Kama and Belaya rivers. Yet, others have been found in the forest-steppe area on the right bank of the Volga River. The population of the Volga River region was engaged primarily in iron metallurgy.

Beginning in the 3rd century B.C. the Sarmatian way of life and the type of economy in the steppes of the western pre-Caucasus were different from those in the eastern areas. These Sarmatians later inhabited the North Black Sea area. The character of their culture was conditioned by milder climatic conditions and by the proximity of Greek and other sedentary centers. These cattle breeders can be described as being semi-nomadic with permanent winter quarters. Some nomads engaged in agriculture as a subsidiary branch of their economy. Nothing is known about the character of the Sarmatian settlements. It is believed that the majority of these Sarmatians resided among the sedentary populations. In the Kuban River region Sarmatians resided among the Meots and Sinds. In the lower Don River area, particularly from the earlier centuries of our era, Sarmatians formed a portion of the population of the Tanais River region and of neighboring settlements. On the western outskirts of their territory the Sarmatians opened up new steppe lands and entered the forest-steppe territory. Attempts to locate Sarmatian settlements among the local population sites have not met with success. This is particularly true in modern Moldavia. In almost every locale where Sarmatians settled a mixed culture emerged and the traits of the diverse sedentary and nomadic ethnic groups blended into an integral whole.

It seems likely that the western Sarmatians obtained most of their finished metallic artifacts from distant and nearby production centers where craftsmen preserved ancient metallurgical skills and traditions. Luxury items also reached the Sarmatians through spoils of war. Gifts or tribute were paid to the Sarmatians by various states including the Roman Empire and city-colonies on the north Black Sea coast. The majority of expensive import objects, such as jewelry and metallic vessels, were acquired by the Sarmatians as a result of trade with Tanais and Phanagoria, the two largest Asiatic Bosporus cities. Money was not part of the Sarmatian culture. However, in the lower Volga River region sixteen coins have been found. Most belong to the 2nd-3rd centuries A.D. and are of Greek,

Roman, and Bosporus mintage. In the vicinity of Uralsk city, five Parthian coins dating from the 1st century B.C. to the 1st century A.D. were discovered. Coins have been found in two burials, one from Alitub on the left bank of the lower Don River and the other near the village of Ishtuganovo in southern Bashkortostan.

The majority of the Eurasian nomads, including the Sauro-Sarmatians had similar social organizations based on the clan-tribe. The tribe was also the basic social unit with administrative, political, and military functions. Depending upon time and place, the intensity of the social processes within the society differed. Like the Scythians, the Sauromatians and the Sarmatians perceived themselves as ethnic communities (Khazanov, 1975, pp. 119-120). The Sauromatian and the Sarmatian tribes developed through a period of class formation.

During the 6th-4th centuries B.C. the early tribal unions in the southern Ural steppes and Volga-Don interfluvial emerged. Despite some instability the tribal unions were relatively powerful and belligerent. According to written sources the Sauromatians fought as an independent group at the side of the Scythians in the battles against Darius in the 5th century B.C. Social and property stratification within the unions was well developed. Within the cemeteries sectors were delineated for burying elite members of societies such as the military aristocracy. In the southern Ural steppes on the Ilek River at Filippovka village an unprecedented rich grave dating to the 5th-4th century B.C. is classified as "royal."

Class formation processes were accelerated greatly as the nomads from the southern Ural steppes and Trans-Volga region advanced westward and came into contact with Greek and Roman agriculture, industry, and trade centers. The Sarmatians were a powerful social group. Documentation indicates that in 179 A.D. the Sarmatian King Gatal was a European ruler (Polibuius XXV, 2, 12). Researchers have suggested that some of the Sarmatian tribes, particularly those from the Kuban River region, could have been included episodically in the Bosporus or Sind states. In contrast, some of the agrarian tribes such as the Meots, could have been included in the Siraki Union as a tributary population. The Siraki Union may have been a primitive state formation existing for a brief time (Khazanov, 1971, p. 83). Researchers have concluded that beginning in the 5th decade A.D. a powerful Sarmatian tribal union roamed the northwestern Black Sea steppes west of Olbia to the Danube River. The repeated invasions of the Sarmatians into the Roman province Mezia are described by Tacitus in his *Annals*. The Vice Regent of Mezia, Titus Plavtius Silvanus (56-66 A.D.), reported that he suppressed disturbances precipitated by the Sarmatians.

Gold coins were minted in the 6th and 7th decades A.D. in Olbia containing the name Farzoi and royal seals were discovered in the western area (Karyshkovsky, 1982). In recent years many more researchers have agreed that Farzoi was a Sarmatian ruler or king not a Scythian. It is possible that in the 2nd half of the 1st century A.D. the Sarmatians established a transitory, unstable early-state formation. This would have had to occur after the Sarmatians subordinated the sedentary population in the vicinity of Olbia and began collecting duty from the Cotins and Osi (Tacitus).

Almost all religious beliefs and cultic practices were the same among the Sauro-Sarmatian nomads. There were only minor differences in expression. All information on this subject is limited to burial rites, augmented with minimal religious evidence from their nomadic neighbors, the Scythians and Saka. In all probability the religious concepts of the Sauro-Sarmatian tribes (and also of the Scythians described by V.I. Abayev, 1962, p. 447) were typical of the clan-tribal cults of pre-Zoroastrian Iran. These concepts have been termed the "natural" ones. The gods were personified. Those gods of nature were the sky, the earth, and fire. Gods pertaining to social concepts were the domestic

hearth and war. The evidence of fire cult practices is exemplified by charcoal and ashes found in the burials. Additional evidence includes structures that were burned over or within the graves and the remains of cremated bodies. The mutually related burial cult and the ancestral cult also are represented specifically in Sarmatian burials.

Applied art embodied the ideology and world view of Sauro-Sarmatians and is expressed in artifacts embellished with animal style art. A majority of researchers believes that the art is not totemic. Instead, it was based on magic. The zoomorphic depictions were protective amulets (Grakov, 1971, p. 36; Khazanov and Shkurko, 1976, p. 45).

"Sarmatization" was a term used to articulate the phenomenal influence the Sarmatians had upon the antique societies. Sarmatization began in the early centuries of our era. From that time onward Sarmatian influence increased steadily. It affected the economic, socio-political, and cultural aspects of the antique societies. The processes were intense in the Bosporus Kingdom, especially in the Asiatic region which was adjacent to the Sarmatian environment. Ethnic changes took place within the populations as a result of Sarmatian infiltrations into the Bosporus and especially into Panticapaeum. The consequences were particularly tangible in the 3rd century A.D., or in the 2nd half of the 3rd and 4th centuries A.D. This phenomenon was first described by M.I. Rostovtsev (1914, 1925).

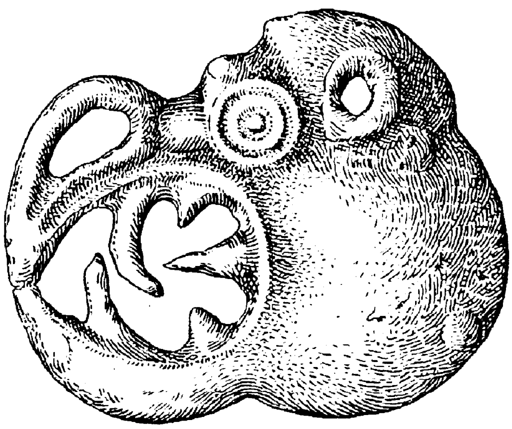
One of the most vivid manifestations of Sarmatization was the establishment in the Bosporus of the royal Asandra-Aspuurg Iranian Dynasty (Rostovtsev, 1914; Blavatsky, 1964; Desyatchikov, 1974). One of the Bosporus kings was named Sauromat. Representatives of royal dynasties had nominal tokens with their titles. The tokens were probably equivalent to the king's name. A token was known in the literature as a Sarmatian. Coins with Farzoi's name also had such tokens. The establishment of the local barbarian dynasty on the Bosporus probably served as a catalyst to develop a Sarmatian element in the population.

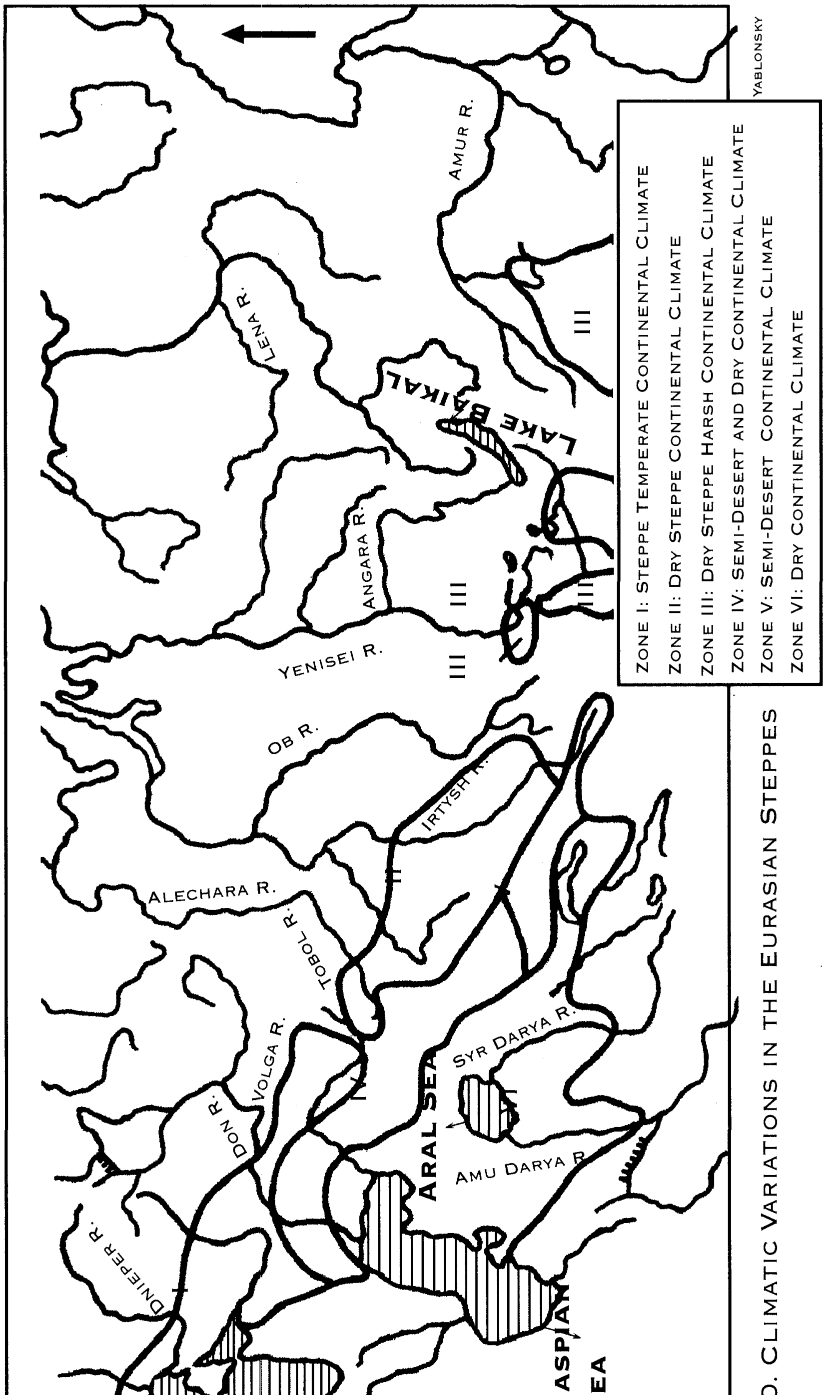
The evolution of the Sarmatian archaeological culture based on more than one millennium of history has demonstrated the important role that these Iranian-speaking nomadic tribes played in the ancient history of Eurasia. After the Hunnic invasion some Sarmatians joined the early Medieval nomads who occupied the Eurasian steppes. Others travelled west with the Huns. Small groups of the southern Ural Sarmatian tribes moved north to the forest-steppes. Some may have entered the southern forest regions inhabited at that time by the local Finno-Ugaric population. These Sarmatians may have been an insignificant ethnic component in the formation of the early Medieval populations in these regions.

The north Caucasian Alan tribes migrated to the foothills and mountains where, in conjunction with the indigenous tribes, established Alania. Alania continued to exist into the 12th century A.D. Other Alans took root in the Don River region and their remains have been found with remains of the Saltovo-Mayatskaya Culture. Surviving European Sarmatians settled among the North Black Sea colonies. Others were probably assimilated by the polyethnic Chernyakovski tribes and participated on a limited scale in the ethnogenesis of the ancient Slavs.

Part III

The Saka in Central Asia





Map 10. Climatic Variations in the Eurasian Steppes

CHAPTER 13

WRITTEN SOURCES AND THE HISTORY OF ARCHAEOLOGICAL STUDIES OF THE SAKA IN CENTRAL ASIA

LEONID T. YABLONSKY

Early cattle breeding tribes of Central Asia have played a prominent role in the ethnocultural and racial genesis of many of its contemporary peoples. In ancient times the cattle breeders maintained permanent contacts with the population of the traditionally agrarian regions and, in general, exerted a direct influence on the development of the historical situation. According to some written sources, in the middle of the 1st millennium B.C. the nomads were actively involved in the political and military expansion of the Achaemenid Empire. Later, the nomads founded powerful political states including Kangyui. It would appear that under the blows of the ethnically diverse nomads, the Greco-Bactrian Kingdom fell. These same nomads formed the socio-political nucleus of first Parthia and then the Kushan Empire.

Based on research archaeologists believe that the earliest communities of people to appear in the Eurasian steppes at the beginning of the 1st millennium B.C. subsisted mainly on cattle breeding. They mastered horseback riding and were thus able to move quickly through vast territories, resulting in a growing interaction between the populations of different and sometimes quite distant areas. Advanced achievements in the economy and in production of material wealth spread in a chain-like manner through the steppes. These achievements also brought mutual spiritual enrichment to the participants.

From a historical point of view, the transition to mobile life marked a point in time when the nomads entered into the political events which were taking place among Middle Eastern countries. Echoes of these happenings have reached us through Herodotus' stories about Scythian campaigns to countries in Asia Minor and from stories about the Scythian conquest of Media prior to their return to their ancestral motherland, the steppes north of the Black Sea. Unfortunately, researchers have no detailed written histories of the nomads who inhabited the Asian steppes east of the Caspian Sea. Based on specific finds archaeologists believe that the Asian cattle breeders apparently knew the material and spiritual culture of the Near Eastern peoples even earlier than their western counterparts.

The *Avesta* is the earliest written source to note the existence of Central Asian nomadic tribes. Yasht XVII, 55-56 describes "tura with fast horses" who were enemies of the sedentary Iranians, and also describes the Danava-Turas (Yasht XIII, 37-38). According to V.I. Abayev (1956, pp. 43-45), the "Danava-Turas" were Saka who inhabited the banks of the Jaxartes (Syr Darya River). Comparison between the "Aryans" and the "Tura" can be made only with reference to their way of life and partly their religion. According to B.A. Litvinsky (1972, p. 156), the name Turais was used in connection with the work of Zarathushtra.[1] It is possible some Tura tribes maintained close contacts with sedentary-agrarian populations of Central Asia not later than the first half of the 6th century B.C.

During this same time period Saka was another name used to denote the steppe nomads. The Saka are mentioned specifically in the list of peoples conquered by the Achaemenid Persian kings, Darius and Xerxes. The earliest written sources to register the name Saka are found on the Bisutun (6th century B.C.) and the Persepolis reliefs (5th century B.C.). Subsequently, the Saka are more frequently mentioned in ancient texts. For example, Herodotus believed that Cyrus did not conquer the Saka (Herodotus I, 153-154). Rather the Saka later submitted to the Persians (Herodotus VII, 92) and became part of the XVth Achaemenid satrapy (Herodotus III, 93, 3), served with the Persian Navy (Herodotus VII, 96, 1; 184, 2) and Mardonius' Army (Herodotus VIII, 113, 2), fought at Marathon (Herodotus VI, 113, 1) and Plateia (Herodotus IX 31, 4-5; 71, 1), and were neighbors of the Bactrians (Herodotus I, 153, 4; IX, 113, 2) (Dovatur, et al., 1982).

The history of the Saka and their combat with the Medes has been preserved by Diodorus (II, 34, 1; II, 43, 6). Ctesias also reported the Saka wars against Cyrus and further commented that the Saka women fought together with the Saka men. Xenophon (circa 445-335/354 B.C.) confirmed that Cyrus conquered the Saka (I, 1, 4). Diodorus presented Efor's version: the Saka belonged to the Scythian tribe, were shepherds, lived in grain-producing Asia, and were nomads by origin. According to Efor (405-330 B.C.), the name Saka denoted Scythians who came to reside in Asia. Arrian (90/95 B.C. to 175 A.D.) (III, 8, 3; VII, 10, 5) and Quintus Curtius Rufus (1st century B.C.) (V, 9, 5; VII, 4, 6; VIII, 4, 20) offered relevant information stating that nomadic Saka tribes were among those who offered resistance to Alexander the Great when he tried to penetrate the Central Asia steppes. The same events are also mentioned by Pompeii Trogus (1st century B.C. to 1st century A.D.).

Strabo (64/63 B.C. to 23/24 A.D.) commented more than once that the Saka were among the nomads living east of the Caspian Sea (VIII, 2). According to this historian, the Saka took part in the conquest of Bactria (VIII, 2; VIII, 4), seized the best lands in Armenia and, upon reaching Cappadocia and the Black Sea region, collided with, and were defeated by the Persians (VIII, 4). Strabo also recounts that Cyrus was defeated in battle by the Saka and that the Saka later ambushed the Persian army killing nearly all the troops. Fl. Josephus (37-100 A.D.) mentions the Saka in the context of armed nomads attacking Parthia (XX, 4, 2). Polyaenus (2nd century A.D.) describes Saka military operations against Darius (XII, 12). Claudius Ptolemeus (2nd century A.D.) places the Saka on the banks of the Jaxartes, west of Sogdiana (IV, 12). In his opinion, the Saka had no cities, but rather lived in forests and in caves. Elian (late 2nd to 1st half of the 3rd century A.D.) reported some early Saka customs. Ammianus Marcellinus (circa 330-400 A.D.) mentions the Saka as neighbors of the Sogdi and referred to the nomads as savage people without cities inhabiting uncultivated lands which were fit only for cattle breeding (XXIII, 60).

Herodotus (VI, I, 64, 2) wrote that "the Persians refer to all the Scythians as Saka." Pliny (VI, 17) also knew this but made the distinction that the Saka were "Scythian tribes" who "lived on

the other side of the Jaxartes." The authors of antiquity, each in his turn, used the name "Scythian" to mean all of the nomads in both the western and eastern Eurasian steppes.

In modern scientific literature, the term Saka designates the Iranian-speaking cattle breeding tribes who inhabited the steppe regions of Central Asia and Eastern Turkestan[2] in the 1st millennium B.C. The Massagetae, frequently mentioned by ancient authors, are treated as a Saka tribe who populated the western areas of Central Asia.[3]

The Saka have left us no script and historians are obliged to use fragmentary passages. Moreover, information about the Saka in the works of the ancient authors is not too reliable. This fragmentary and poorly constructed information sheds no light on the formative stages of the Saka-type communities. Also, some data are mythological in nature. Therefore, we must rely on archaeology and paleoanthropology to supply objective scientific data to solve the general problems of the early nomadic history of Central Asia.

Archaeological studies of Early Iron Age sites in the western Black Sea region began in the 19th century A.D. Because of the incredible finds from the royal Scythian kurgans the public's interest was peaked and the Scythians have assumed a prominent position in the cultural legacies of the world. The eastern steppe lands, however, have remained blank on the archaeological map. Scholars made the erroneous assumption, which only recently has been corrected, that the steppes north of the Black Sea were always the cultural and political center of the Scythian world and that the Asian lands were, at best, its hinterland.

It was only in the late 1920s that M.V. Voevodsky and M.P. Gryaznov began organized archaeological studies in the eastern steppe belt. As new scientific data, including that of the Neolithic, and material from excavated cemeteries and settlements accumulated, scholars began to realize that the historical and cultural developmental processes throughout the great Eurasian steppes showed many parallels with those from the more western steppe lands. Animal breeding economies were established in the European and Asian steppes at essentially the same time. Between the 14th-11th centuries B.C. horse riding equipment appeared. Toward the end of this period, and probably as a result of climatic changes, an alpine-type cattle breeding economy developed across the steppes. By the beginning of the 1st millennium B.C., as indicated by similar traits in material and spiritual culture, a new type of community, composed of cattle breeding tribes, had developed across the entire steppe zone. In our literature this community type is known as the "Scythian world of Siberia." This terminology is only partially appropriate because, although it adequately reflects the cultural similarities between peoples of the western and eastern steppes, it inappropriately combines the ethnic term "Scythian" with the geographic area "Siberia." From an archaeological point of view, the "Scythian world of Siberia" indicates, above all, the presence in the burial rite of the "Scythian triad," a combination of burial items which must include weaponry, horse harness items, and at least one artifact exhibiting the Scythian "animal style" tradition.

At the same time, analyses of archaeological remains indicates that Saka communities were not always culturally homogenous. Equally interesting is the fact that the populations, as evidenced by paleoanthropological materials, were not physically heterogeneous. We are, therefore, obliged to observe a system of local variations. Each variation was bound to a specific geographical area within the entire steppe zone. The results of ethnological studies lead us to conclude that the particular ecological conditions of the habitat leave a strong imprint on the material culture. Therefore, before attempting an archaeological description of the Saka communities we should briefly describe the natural geographical conditions of their habitat.

Much of Central Asia is desert (Map 10) surrounded by the Pamir-Altai, Tien Shan, and the Altai mountain ranges located on the southeastern, southern, and eastern borders. In the north deserts merge into semi-desert and then into steppe zones. The steppes never maintained stable borders because they shifted meridionally in both humid and dry periods. This instability had a direct effect upon the economic systems of the populations who occupied these border regions.

In the mountainous regions uncountable ridges define foothill and hill valleys. Small rivers originate in and nourish the valleys. These rivers are also the headwaters of the two great waterways of Central Asia, the Amu Darya and the Syr Darya, which carry their waters to the Aral Sea. The fertile Ferghana Valley is irrigated by upper reaches of the Syr Darya. In addition to the Syr Darya in eastern Central Asia, other great rivers, among them the Ili, Chu, Talas, Kizilsu, Kaskadaria, and Sokh, flow from the mountains to sustain the fertile territory in southern Kazakhstan known as the Semirechiye (Seven Rivers). The largest lakes in this area are the Balkhash and Issyk Kul. However, many other rivers do not reach the larger reservoirs, but disappear into the sands of the plains (e.g., the Zeravshan, Sanzar, Tedzhen, Burgab, Sarysu, and Chu rivers). Larger rivers also periodically change their course creating new river beds and deltas. These rivers water various zones of the desert plain, and over time have been instrumental in the development of agriculture and semi-sedentary cattle breeding. We can say that the Syr Darya and the Amu Darya rivers definitively shaped the landscape of western Central Asia. Their deltas were home to the original cattle breeding societies that contributed to the development of the earliest Central Asian Chorasmian state.[4]

Using archaeological data K.A. Akishev (1972, 1977) analyzed the diverse economic models that existed in ancient times. He deduced that the ancient inhabitants of Central and Western Kazakhstan were nomadic. In other words, the tribes practiced a "horizontal" pattern, roaming the territory and travelling great distances throughout the entire year. Their herds were sheep, camels, and horses. In contrast, in the Semirechiye in eastern Kazakhstan, and in the foothills and alpine valleys of the Tien Shan and the Pamirs-Altai, a semi-nomadic cattle breeding society was well developed. "Vertical" migration was a characteristic feature of the mountainous areas. Grazing began in the valley and then herds migrated to highland pastures in the summer and back to permanent homes in the winter. In the deltas of the larger rivers and on the borders of agricultural oases cattle were grazed within a limited territory and the societies were predominantly sedentary. It was through the sedentary cattle breeding societies that the symbiotic relationship between the traditional nomad and the agrarian cultures occurred. Such was the position of tribes who occupied Semirechiye and the lower reaches of the Amu Darya and Syr Darya rivers in the early 1st millennium B.C.

Today a significant mass of data reflecting the material culture of the Saka who lived in various regions of Kazakhstan is available to archaeologists. A brief review of the data will disclose the principal technological and economic achievements of the communities who have frequently been considered "barbarians" in keeping with criteria established by the ancient authors. The archaeological information in conjunction with the paleoanthropology data from other scientific disciplines serve to reconstruct ethnogenetic processes that took place within the Saka world. The accumulated data are so massive that we must introduce chronological limits and confine our attention to the materials dated between the 8th-6th centuries B.C. since this is the most crucial period in the development of dominant Saka traits in Central Asia.[5]

Notes

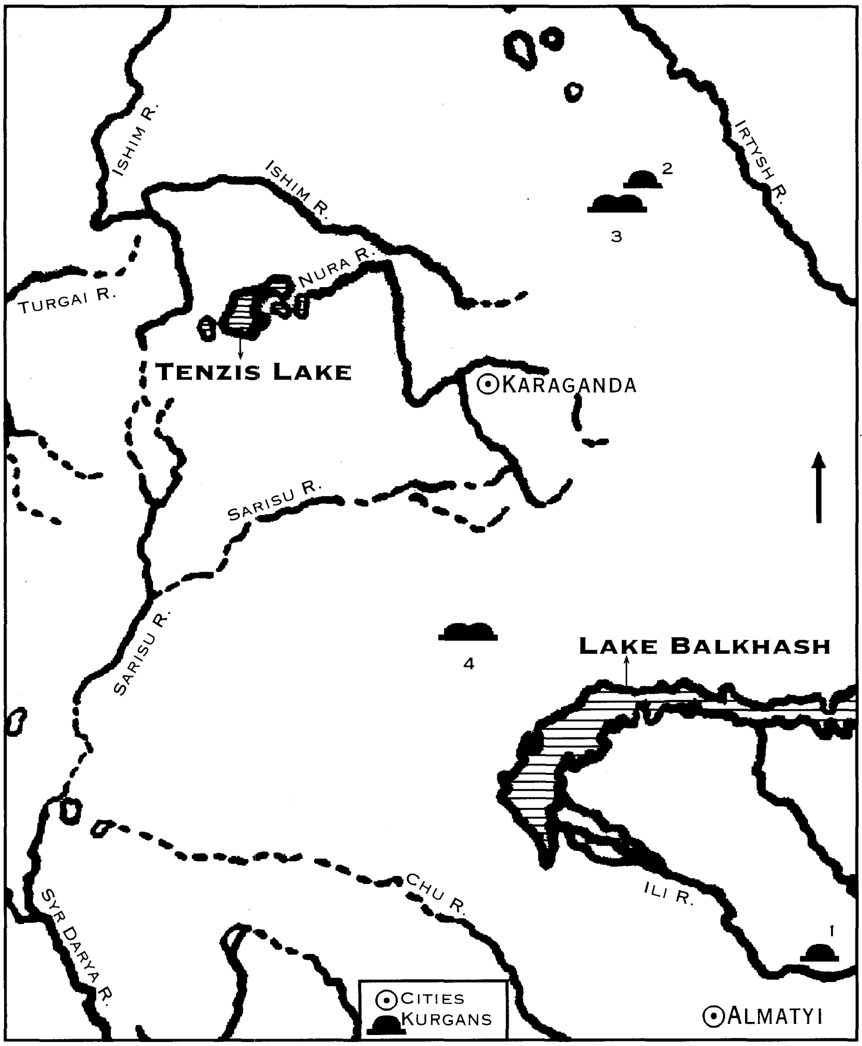
Chapter 13

Written Sources and the History of Archaeological Studies of the Saka of Central Asia

1. Zoroaster.
2. Present-day Xinjiang Uigher Autonomous Region of western China. (Ed. note)
3. The Saka probably populated the western areas of the geographic regions as defined in Central Asia, Gavin Hamby, ed., London, 1969. This region includes the republics of the former U.S.S.R. which are known today as Kazakhstan, Kyrghystan, Tadjikistan, Turkmenistan, and Uzbekistan. (Ed. note)
4. Kyzeli Gir, 7th-5th centuries B.C.
5. Illustrations used for "The Saka of Central Asia" have been taken from summary archaeological tables compiled for the publication Arkheologiya SSR. Stepnaya zona Axiatskoi chasti SSR v skifo-sarmatskoye vremya (Archaeology of the USSR. Steppe zone of the Asian Part of the USSR in the Scythian-Sarmatian Period), Moscow, 1990. The tables are compiled by B.I. Vainberg ("Kuyusai 2 Settlement"), M.A. Itina ("The Lower Syr Darya Saka"), Yu. A. Zadneprovsky ("Saka of the 'Semirechiye' Tien Shan, Ferghana and the Pamirs"), and O.A. Vishnevskaya ("Saka of Eastern Kazakhstan"). The tables of archaeological materials from the lower Amu Darya cemeteries are based on original materials from the author.

MONUMENTS

1. BESHATIR
2. TASHMALA
3. KARAMURUN, NURMANBET
4. KEEK-SU



YABLONSKY

MAP 11. EARLY SAKA ARCHAEOLOGICAL MONUMENTS IN CENTRAL AND EASTERN KAZAKHSTAN

CHAPTER 14

THE MATERIAL CULTURE OF THE SAKA AND HISTORICAL RECONSTRUCTION

LEONID T. YABLONSKY

Central Kazakhstan. Small rivers crisscross the steppes of central and eastern Kazakhstan (Map 11) providing water for cattle. Winter snows were minimal within so that the migration pattern continued throughout the season. Within the territory of modern Pavlodar oblast in central Kazakhstan, M.K. Kadrybayev (1966) studied numerous kurgan cemeteries and classified them as "Tasmola" type (latest data summary: Vishnevskaya, 1990). The architecture of the burial mounds remained essentially unchanged throughout the long period from the 7th century B.C. to the 3rd century B.C. The cemeteries are generally small, containing 10 to 15 kurgans, although occasionally a single isolated kurgan has been found. The mounds do not exceed 10 m in diameter and are 0.2 to 1.0 m in height. Frequently the circular embankment of each kurgan was defined with a ditch and further surrounded by a circle of large stones.

In addition to common kurgans (Fig. 1 a-c), almost every necropolis also contained an unusual kurgan formation designated as "with mustache" (Fig. 2). The kurgans "with mustache" have three elements: a large kurgan, two small kurgans, and two stone ridges placed in a semicircular line which connected the large to the small mounds (Fig. 2 a-d). Pit burials have been found within the larger kurgans (Fig. 1 a-b) while a horse burial (either a complete horse, or only selected bones) and two or three clay vessels were usually found in the smaller kurgans (Kadyrbayev, 1966). In some instances, the smaller kurgans also contained ashes indicating that a small fire had been lit. Kadyrbayev believed (1966, pp. 431-432) that the stone ridges, in association with the small kurgans, were manifestations of the solar cult because generally they are orientated eastward toward the sunrise. The Tasmola kurgans invariably contain only a single burial. The earthen grave pits are oval-shaped, and were covered with stone slabs below the built-up mound. The deceased was placed with the head oriented to the north or northwest (Fig. 2c).

During the 7th-6th centuries B.C. in northeastern Kazakhstan, male burials contained a horse hide wrapped around a horse head, horse trappings, and the head and shoulder blades of a ram. These grave gifts were placed at the foot of the deceased (Fig. 3). In the Tasmola cemeteries the female was placed in a pit that contained side niches blocked with stone slabs (Fig. 2f). In contrast, the male was

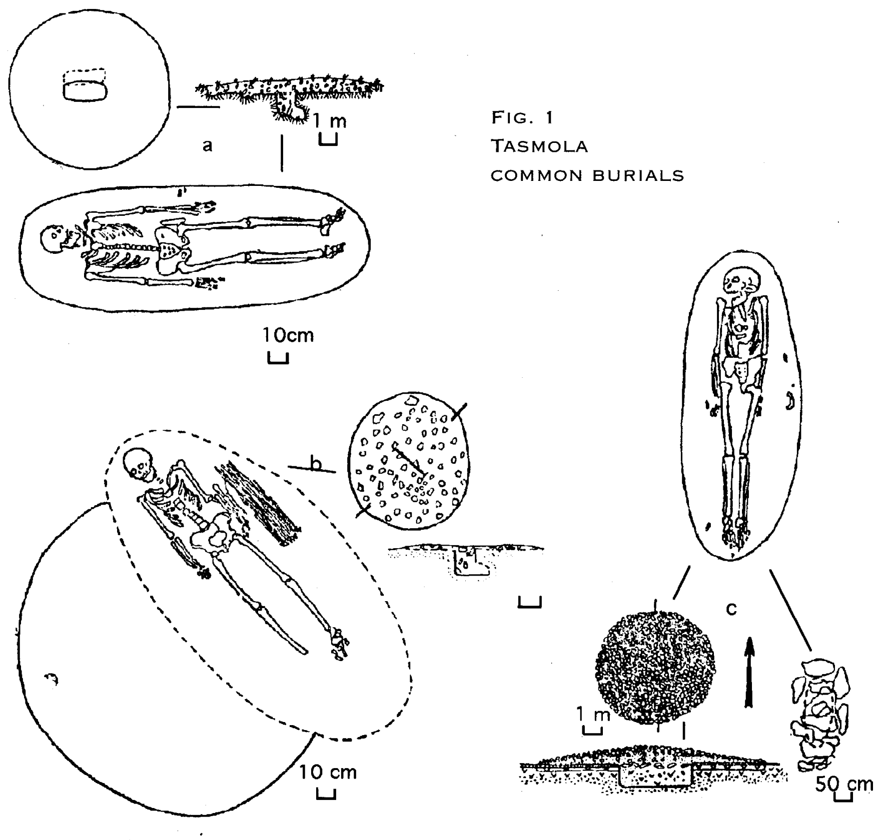


FIG. 1
TASMOLA
COMMON BURIALS

usually buried with no additional structures. Both sexes were predominantly oriented to the west. In central and in north-eastern Kazakhstan, accompanying grave goods are similar, allowing for the supposition that close kin relations existed between groups.

The most common weaponry were bows and arrows. However, as the bows were probably made entirely of wood, and therefore perishable, none have as yet been discovered. However, in contrast, arrowheads with wooden shafts preserved are a frequent find. In Saka burials, two major arrowhead types, socketed and tanged, are found. This specific arrowhead combination is typical in general in the Eastern steppes and, in particular, in the Kazakh steppes. The local forms are usually dated to the 7th-6th centuries B.C. but the types can be traced to the Bronze Age when, in the territories of central and eastern Kazakhstan, two parallel types were used: 1) tanged, bilobed, and barbed (Fig. 4 a-j, n-r), and 2) socketed trilobed (Fig. 4 k-m) (Akishev, 1963, p. 113). Because arrowhead typologies and chronologies are well developed now and arrowheads are a frequent find in the burials, archaeologists can successfully date a burial using this artifact. Daggers are much rarer in Tasmola burials and only one has been reliably dated to the 7th-5th centuries B.C. (Fig. 4s).

Saka horse trappings included bridle bits, cheekpieces, harness rings used for strap crossings, cockades for crownpieces and bridles, and various decorative strap plates and bosses. All of the bits are bronze cast and have jointed mouthpieces (Fig. 5). Using the holes at the end of the mouthpieces as a criterium, O.A. Vishnevskaya (1990) established a typology for the bridle bits. Bits with stirrup-shaped ends, the ends pierced with an additional hole (Fig. 5), are often dated to the 8th century B.C. Similar types are also known from sites in Southern Siberia, Tuva, the lower Syr Darya River region, and the Pamir Mountains. A more frequent type are those with stirrup-shaped ends and without the additional hole (Fig. 5b). These bits were known to have existed in the 7th century B.C. in the southern Russian steppes. Bits with stirrup-shaped ends and embellished with lugs (Fig. 5a) are dated to the 8th-7th centuries B.C. (Akishev, 1978 gives the earlier date) and are known only in Kazakhstan. It is questionable if bits with ring-shaped ends (Fig. 5c) can be dated earlier than the 2nd half of the 6th century B.C. Cheekpieces were made of bronze (Fig. 6), bone, or horn (Fig. 7). Vishnevskaya (1990, p. 134) recognized five central Kazakhstan cheekpiece types. Analogies of

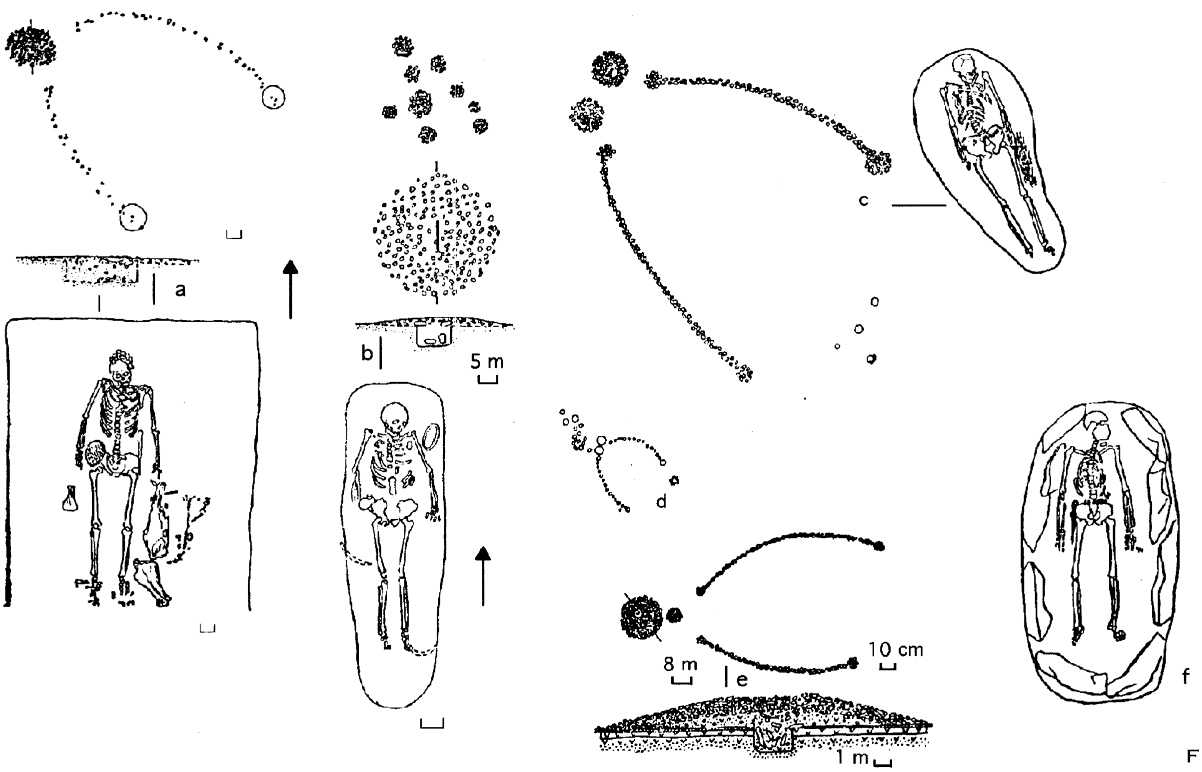


FIG. 2
TASMOLA KURGANS
"WITH MUSTACHES"

some bridle types are found in Saka cemeteries of the lower Syr Darya River region.

Bronze cockades are composed of a flat or convex plate attached to an undercarriage with four slots used to pass the leather straps through (Figs. 6, 8, b-c). Small bronze rings, sometimes cast in the form of a rosette, were used to secure knots at the end of other straps (Fig. 9). Head straps and crownpieces were joined together using various bosses and crossing strap holders (Fig. 10). Tombs have also yielded round buckles with mushroom-shaped tangs on their inner or outer edges to secure the strap. These are classified conventionally as girth buckles and are known throughout the Saka territory.

A rich set of horse trappings was discovered in a female burial in the cemetery, Tasmola I, Kurgan 19 (Fig. 6). In Kurgan 2 of Tasmola V, seven horse heads with bridles, finials in the form of sculptured rams (Fig. 6m), and bronze bells (Fig. 11) had been placed at the feet of the deceased.

Horse trappings and toilet accessories were frequently decorated with depictions of animals and birds in the traditional Scytho-Siberian animal style. These are the figures of mountain goats (Fig. 12), an elk or moose head (Fig. 13), and clasps from maral horn[1] in the shape of a highly stylized bird of prey. On the exterior surface of the clasp, a running boar is metamorphosed with a cervid and other zoomorphic forms (Fig. 14). Of interest also is an elaborated maral horn harness ring carved in the shape of a coiled boar (Fig. 15).



FIG. 3
GRAVE GIFTS AT
FOOT OF THE
DECEASED

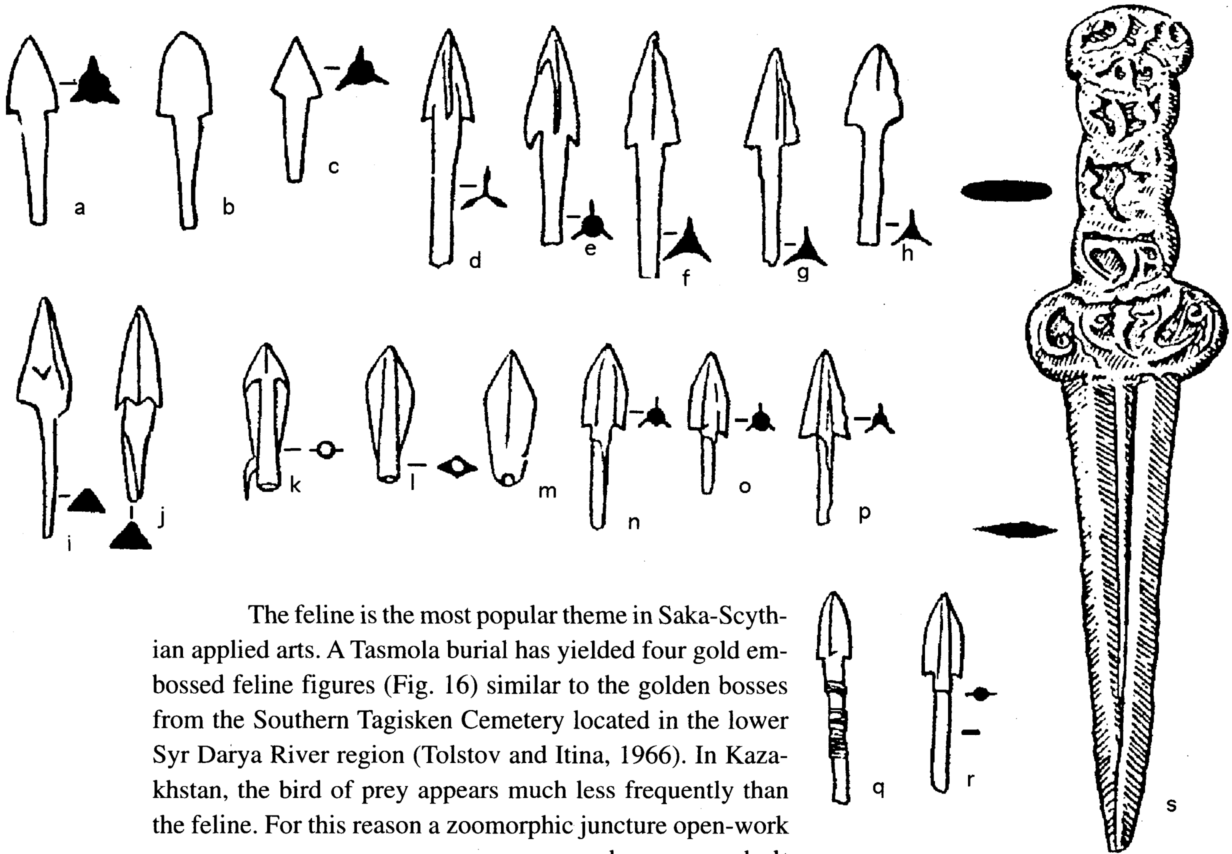


FIG. 4
TASMOLA ARROWHEADS AND DAGGER

The feline is the most popular theme in Saka-Scythian applied arts. A Tasmola burial has yielded four gold embossed feline figures (Fig. 16) similar to the golden bosses from the Southern Tagisken Cemetery located in the lower Syr Darya River region (Tolstov and Itina, 1966). In Kazakhstan, the bird of prey appears much less frequently than the feline. For this reason a zoomorphic juncture open-work bronze belt plaque, decorated with a bird of prey, its head turned back over an animal body, is of special interest (Fig. 17). A special category of Saka art is found among the petroglyphs (rock-drawings). Here depictions include human figures and domesticated animals as well as wild animals.

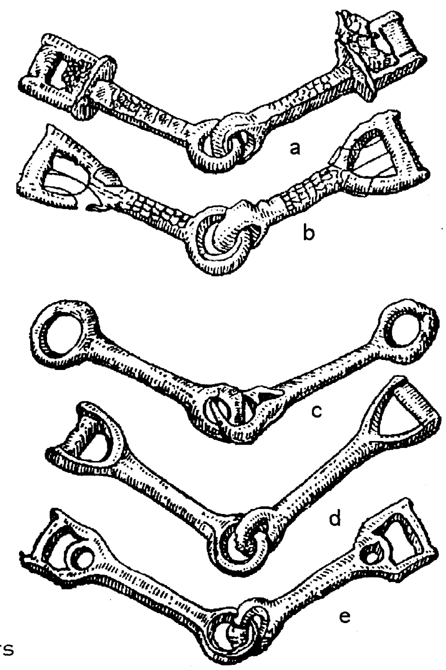


FIG. 5
TASMOLA BRIDLE BITS

Hand-built pottery vessels (Fig. 18) were made from coarse clay. Some are large, up to 40 cm in height. Because the clay is very brittle, they were impractical for long nomadic migrations. Vishnevskaya (1990, p. 135) has theorized that these vessels were made specifically for burial ceremonies.

Two types of knives, the earliest dating to the 7th-6th centuries B.C., are widespread in the area populated by Saka tribes (Fig. 19). The shape of iron knives (Fig. 20) echoes those of the bronze ones. Whetstones, used to sharpen knives and weapons, are equally frequent finds.

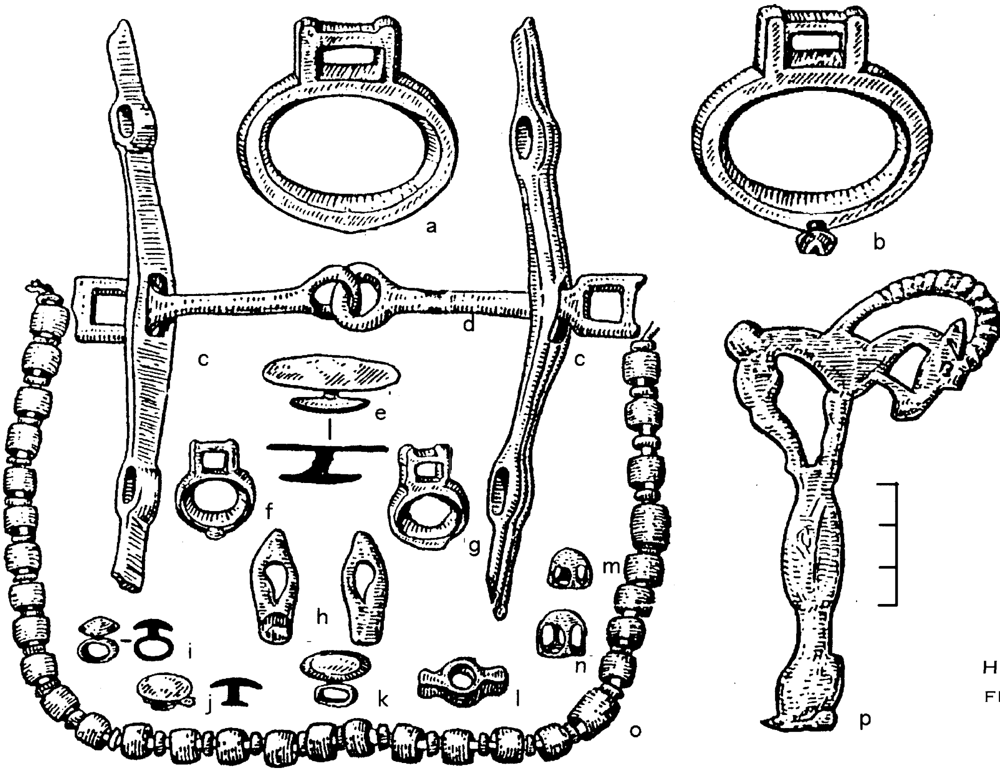


FIG. 6
HORSE TRAPPINGS
FEMALE TASMOLA
BURIAL

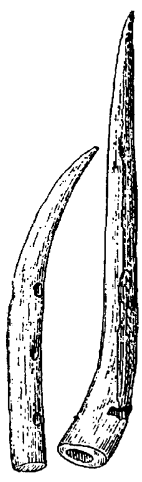


FIG. 7
CHEEKPIECES
(BONE)

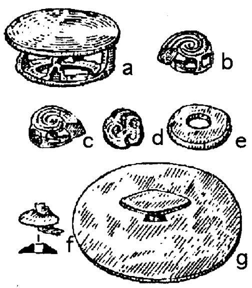


FIG. 8
COCKADES (BRONZE)
FOR CONTAINING
LEATHER STRAPS

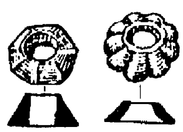


FIG. 9
HARNESS RINGS
(BRONZE)



FIG. 10
STRAP GUIDES
(BRONZE)

The handle usually has a hole and the implement was worn suspended from the belt (Fig. 21). All of the bronze mirrors known in central Kazakhstan have come from female burials. Two are dated to the 7th-6th centuries B.C. (Fig. 22). Their closest analogies are found in the Saka kurgans in the Altai Mountains and in the lower Syr Darya River region. Almost all excavated cult items, including the oval-shaped, legless altars carved from sandstone, come from female burials (Fig. 23). This type of altar is typical among the Saka throughout Kazakhstan. Jewelry items are bone hairpins, turquoise, argillite, red stone,

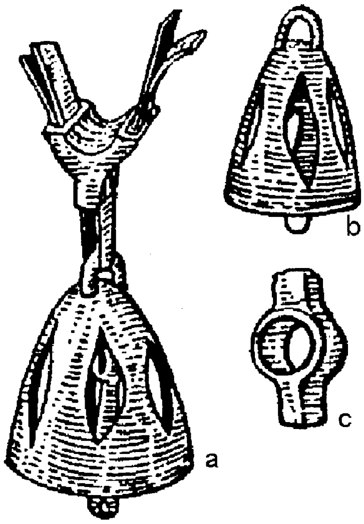


Fig. 11
Finial and bell
(bronze)

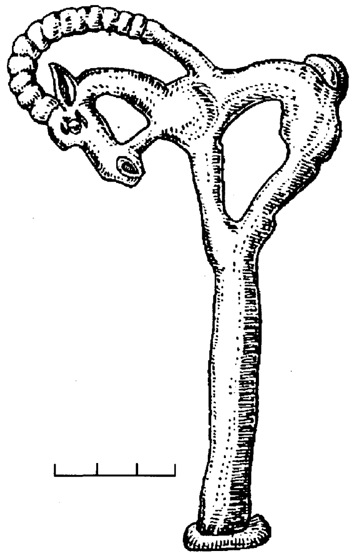


Fig. 12
Mountain goat in
Scytho-Siberian
style
(Bronze)

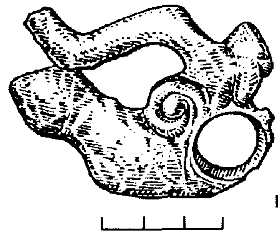


Fig. 13
Moose head
(Bronze)

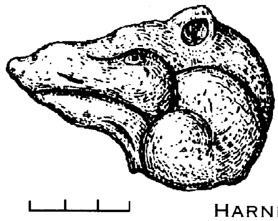


Fig. 15
Harness ring in
form of a boar
(Maral)

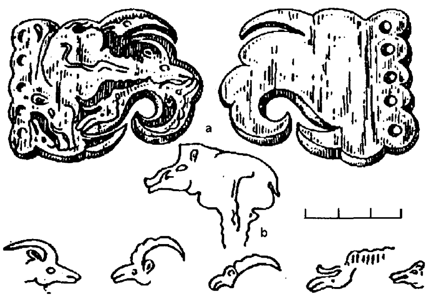


Fig. 14
A-B. Stylized bird of prey with
zoomorphic juncture
Others petroglyphs

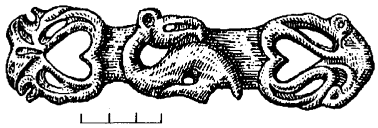


Fig. 17
Bird of prey
zoomorphic juncture

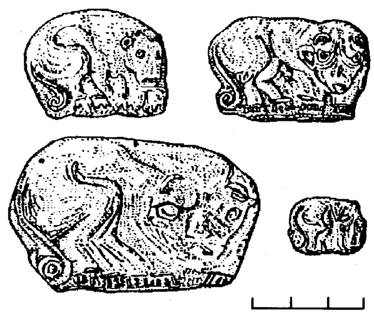


Fig. 16
Felines
(Embossed gold)

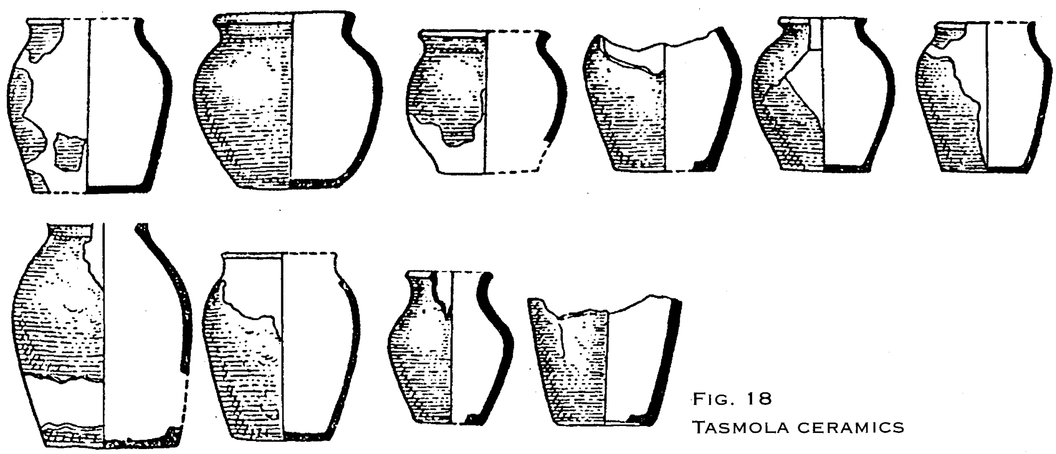


Fig. 18
Tasmola ceramics

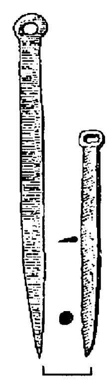


Fig. 19
Tasmola
knives
(bronze)



FIG. 20
IRON
KNIFE

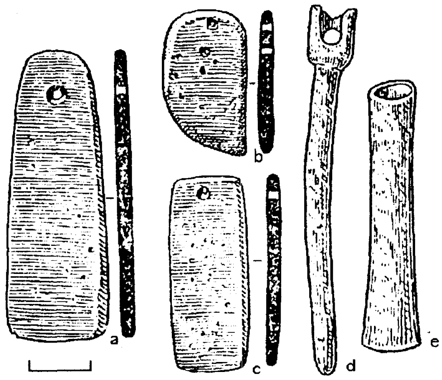


FIG. 21
WHETSTONES AND OTHER
TOOLS, POSSIBLY AWLS

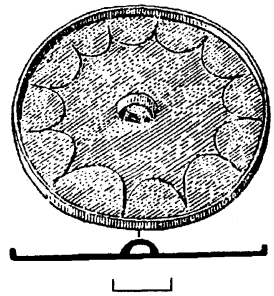


FIG. 22
MIRROR
TASMOLA CULTURE
(BRONZE)

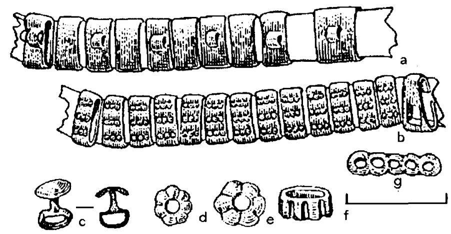


FIG. 24
SEGMENTED BELTS AND
ATTACHMENTS FROM
MALE BURIALS

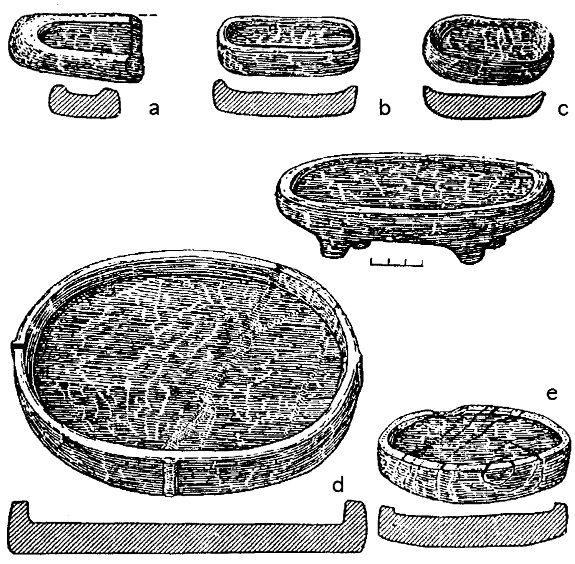
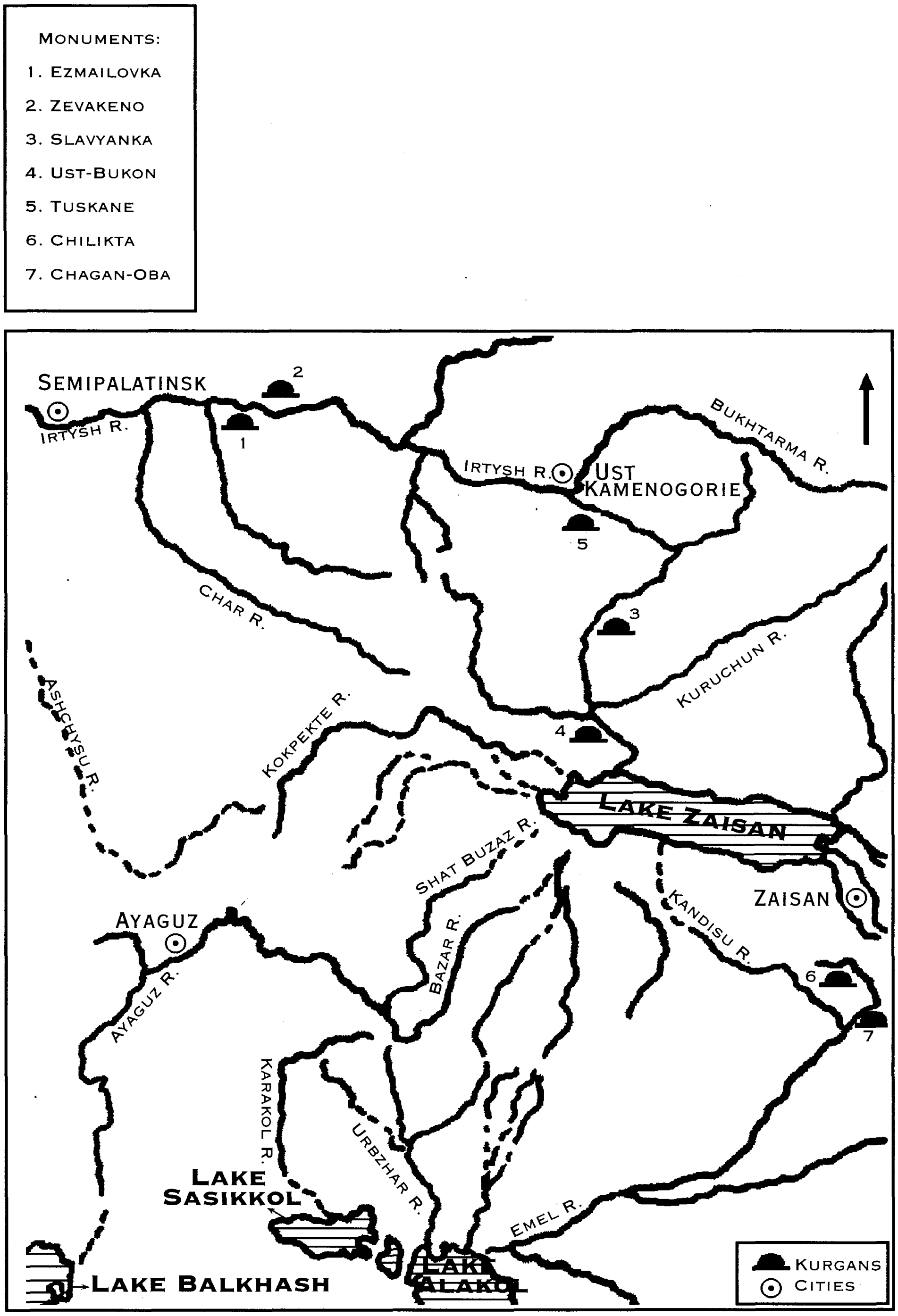


FIG. 23
LEGLESS ALTARS FROM FEMALE BURIALS
(SANDSTONE)
TASMOLA CULTURE

carnelian, and glassy paste beads. Male burials are marked by carved, open-work bone plaques, composite belts decorated with bronze plaques, and figured rings for horse trappings (Fig. 24).

According to data acquired by O. Ismagulov (1970), the physical type of the Tasmola population is similar to that of the local Bronze Age. An insignificant Mongoloid admixture was noted only in the case of one skull. In physical appearance, the population of central Kazakhstan was similar to that of the Altai.

M.K. Kadyrbayev (1966, p. 408) theorized that the Saka population of central Kazakhstan could be equated with three tribes known from ancient written sources: the Agrippeans living in northwestern Kazakhstan, the Issedonians living in the central region, and the Arimaspians living in eastern Kazakhstan.



Map 12. Eastern Kazakhstan Monuments

Yablonsky

Eastern Kazakhstan. The archaeological remains of the Saka who occupied eastern Kazakhstan (Map 12) are known primarily due to the work carried out over a long period of time by S.S. Chernikov (1960, 1965, 1975) and his pupils and supporters. N.A. Bokovenko and Yu. A. Zadneprovsky authored the latest data summary on the early nomads of this area and have suggested the 8th to early 6th centuries B.C. as an appropriate date for the initial formation of local Saka communities (1990, p. 142).

Funeral rites of the Saka occupying eastern Kazakhstan vary significantly from those of the central region. Large kurgans from Chilikta Valley range from 20 to 100 m in diameter and are 8 to

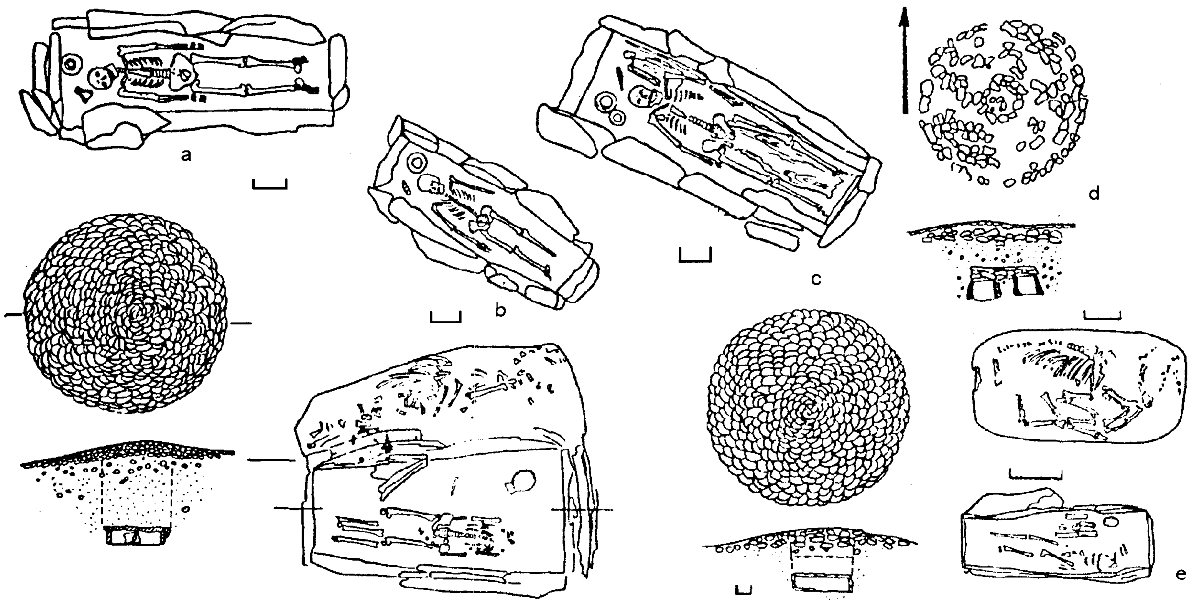


FIG. 25
CHILIKTA VALLEY KURGANS AND BURIALS
EASTERN KAZAKHSTAN

10 m high. The mounds are composed of alternating layers of earth and fine gravel while the surface is covered with large stones (Fig. 25). The outer perimeter of the mounds are surrounded by low barriers made from large stones (Fig. 26). The grave cyst was generally square in plan and had a dromos entrance. The dromos and pit were covered with wooden logs and stones (Fig. 27). The head was orientated to the west. A synchronous variation of this funeral rite is known in the Alakul Valley of Southern Siberia east of the Ural Mountains where burials with side niches have been recorded. The niche entrances were covered with stone slabs (Fig. 28). The deceased was supine and the head was also orientated to the west. As mentioned above, similar burial chambers are known from synchronous kurgans in central Kazakhstan.

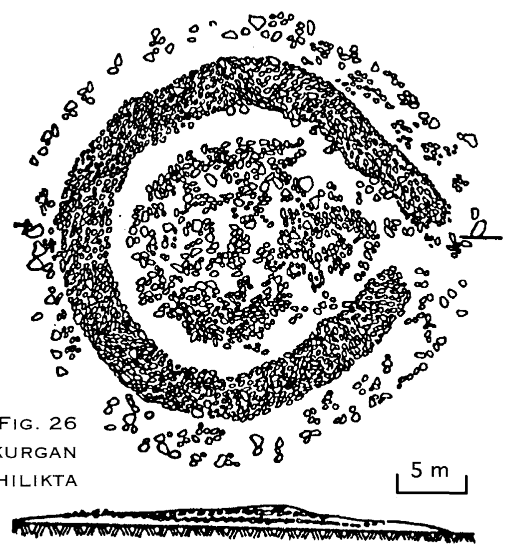


FIG. 26
STONE KURGAN
CHILIKTA

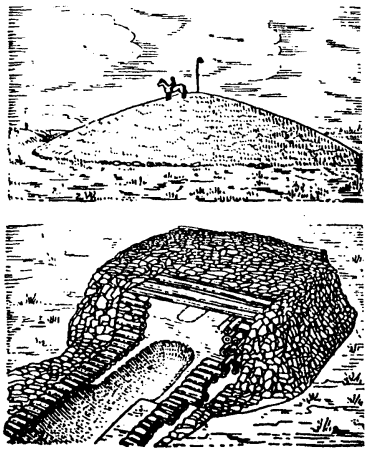


FIG. 27
KURGAN WITH DROMOS
CHILIKTA

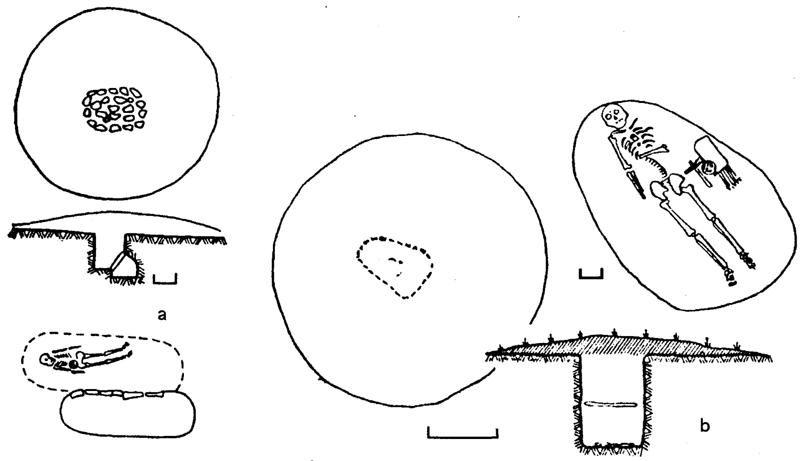


FIG. 28
ALAKUL VALLEY
KURGANS AND
BURIALS
SOUTHERN
SIBERIA

However, burial structures in the Irtysh Valley, also located in Southern Siberia east of the Ural Mountains, have a different design. Round or rectangular barriers were constructed around the perimeter before the mound was built. The deceased was buried either in a shallow pit or placed on the surface. The body was laid on the side, arms and legs contracted, with the head orientated southwest or south. Although single burials prevail, some kurgans contained two or three skeletons (Fig. 29). It is important to note that these burials provide a most vivid reflection of Bronze Age funerary rites such as the position of body combined with the southward orientation, the archaic fence form, and ceramic vessels that are all typical of local Late Bronze Age Karasuk Culture. However, other grave goods, including knives, horse trappings, weapons, and animal style decorative objects have analogies with the early Saka material in Central Asia (Akhindjanov, et al., 1987). It is interesting that in these burials horse trappings were not put into the cyst, but rather were laid on the ground surface before the mound was built up (Fig. 25b). A similar custom has been recorded dating from the 8th century B.C. in the adjacent Tuva region and also in the Sayan and Altai mountains (Bokovenko and Zadneprovsky, 1990, p. 143). At this time the deceased was also placed in a rectangular cyst lined with stone slabs, a custom similar to those of the Bronze Age (Fig. 30). However, the burials of the Saka Period differ from those of the Bronze Age in that the cover was not made of wood, but rather of stone, and the orientation of the head was to the west or northwest. These traditional burial practices continued in this region into our era (Fig. 31).

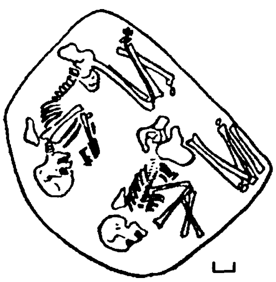
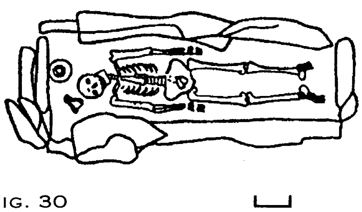


FIG. 29
BURIALS
IRTYSH VALLEY



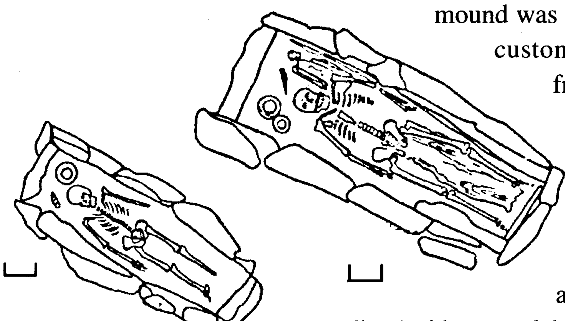


FIG. 30
BURIALS
SAYAN AND ALTAI
MOUNTAINS

In eastern Kazakhstan, as in the central part of the republic, early Saka settlements do not

survive into our era and, as a result, our concepts of cultural traits are based exclusively upon finds from burial complexes. Bronze knives, accompanied by whetstones, take the predominant place in the list of tools. Most typical of the early period are the bronze knives with ring-shaped, mushroom-shaped, or bolster-type pommels. Knives with zoomorphic pommels are rarer, and those that exist have analogies with those from contemporary sites in the Sayan and Altai mountains. Harness rings, buckles, and combs are carved from bone and horn. Mirrors (Fig. 32), all made of bronze, are disk-shaped with a high rim and a loop in the center for suspension. Occasionally the reverse is adorned with zoomorphic depictions in relief.

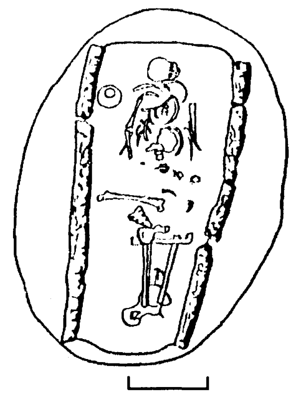


FIG. 31
BURIAL
SAKA PERIOD

Bows and arrows, swords, and daggers make up the repertoire of weapons. The form of the pommel and guard on the latter weapons are similar to those of the Bronze Age (Fig. 33). Arrows were carried in quivers made of wood and leather and decorated with gold bosses. Arrowheads are made of bronze or bone. Socketed arrowheads in cross-section are bilobed leaf-shaped or asymmetrical-rhomboid shaped. A sub-type is rhomboid-shaped in section with a long socket. Some sockets also have a barb (Fig. 34). Bone arrowheads are tanged and rhomboid in section. In eastern Kazakhstan, the prototype of the socketed arrowhead dates to the Bronze Age.

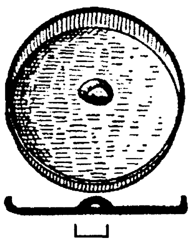


FIG. 32
DISK-SHAPED
MIRROR
(BRONZE)

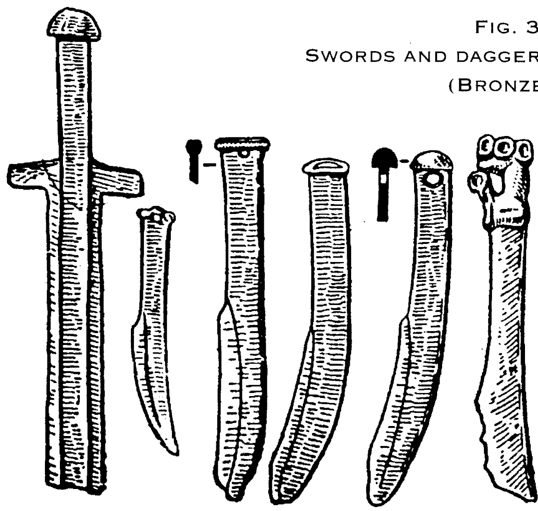


FIG. 33
SWORDS AND DAGGERS
(BRONZE)

The three-holed psalia and familiar bridle bits with stirrup ends was widespread during the early period (Fig. 35). In the late 6th century B.C., two-holed psalia and ring bits appeared. Cylindric harness rings for the bridle strap crossing (Fig. 36), strap doubles and separators, cheekpieces and girth buckles were also typical of the early period (Fig. 37). Triple-fluted and round fasteners (Fig. 38c) were used as buttons.

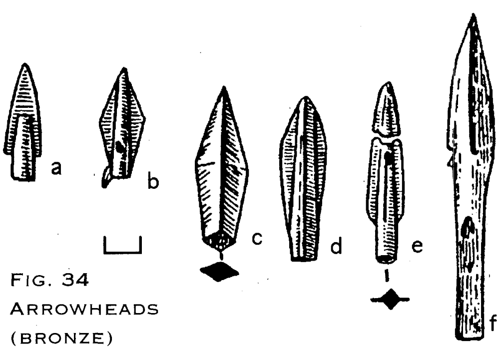


FIG. 34
ARROWHEADS
(BRONZE)

Chieftains' clothing was embellished with sewn on pieces of sheet gold (Fig. 39) illustrated by a splendid set of decorations from the Chilikta Valley kurgan (Chernikov, 1965). The dress had been adorned with beads and plates, punched to depict a triangle or rhomboid segment. Other plates have zoomorphic motifs, depicting a bird, a feline beast of prey, a boar, or an eagle. Technological methods, including incrustation and granulation for embellishing attests to the high level the jewelers' art had reached. For example, a three-dimension

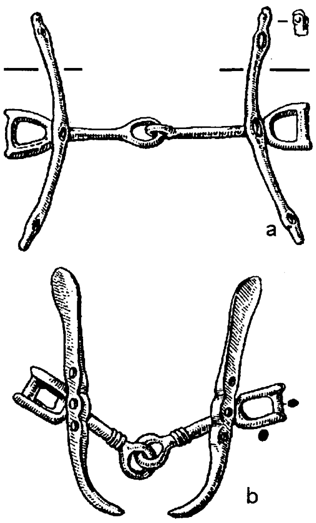


FIG. 35
BRIDLE PSALIA AND BITS
(BRONZE)

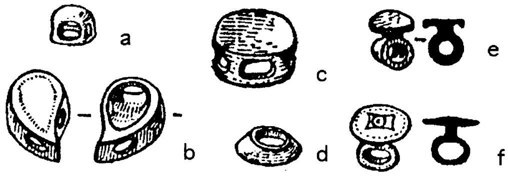


FIG. 36
BRIDLE STRAP
GUIDES
(BRONZE)

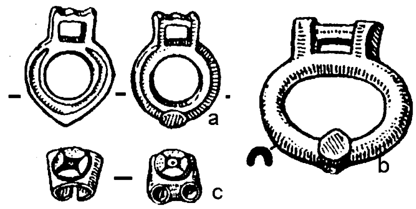


FIG. 37
A-B. BUCKLES
C. STRAP GUIDES
(BRONZE)

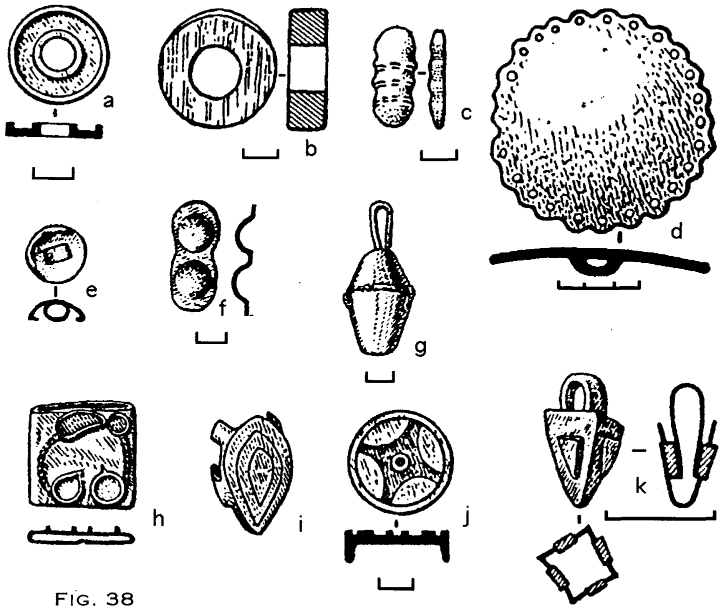


FIG. 38
FASTENERS AND
OTHER SMALL FINDS
A. SEMIPALATINSK
B-D. ZEVAKINSKII
E, I-J. UISTYI YAR
F-K. CHILIKTA
A, D . (BRONZE)
C. (STONE)
ALL OTHERS (GOLD)

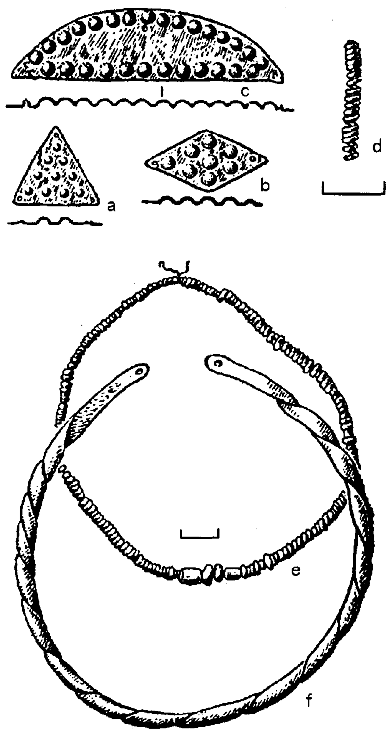


FIG. 39
A-D. ORNAMENTS SEWN TO CLOTHING
(GOLD)
E. NECKLACE
(CARNELIAN AND TURQUOISE)
F. TORQUE (GOLD)
CHILIKTA CEMETERY

rendition of a fish of prey was made from sheet gold, its eyes and fins were inlaid with turquoise while the body was adorned with granulation (Fig. 40). Beads of various shapes were made of carnelian, turquoise, glass, bronze, and gold (Fig. 41).

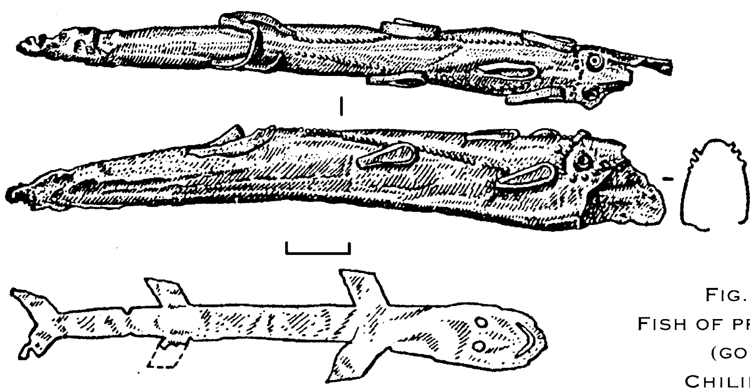


FIG. 40
FISH OF PREY
(GOLD)
CHILIKTA

Ceramic vessels are rare. However, those that exist repeat the Bronze Age forms from the region. Bronze cauldrons known throughout the Eurasian steppes are typical (Bokovenk, 1981) and it is assumed that these vessels had a ritual purpose. One such cauldron was adorned with a solar representation, the points of the motif radiating upward from the round base (Fig. 42). A similar ornamentation connected with the Middle East[2] came from a kurgan located near the city of Stavropol[3] (Petrenko, 1980, pp. 15-19).

In eastern Kazakhstan applied art is characterized by the classical Scytho-Siberian animal style tradition. Sheet gold appliques depicted animal and bird in silhouette. Bas relief plaques, or sculpture in the round, were cast from bronze and gold. The stag, boar, tiger, snow leopard, bird, and fish are among the most frequent zoomorphic characterizations (Figs. 40-43). Nevertheless, depictions of the stag and the feline beast of prey are numerically predominant. In addition to zoomorphic petroglyph depictions, anthropomorphic scenes are characterized. Of much interest is a scene of two warriors fighting with socketed axes (Fig. 44).

The physical appearance of the Saka in eastern Kazakhstan is essentially

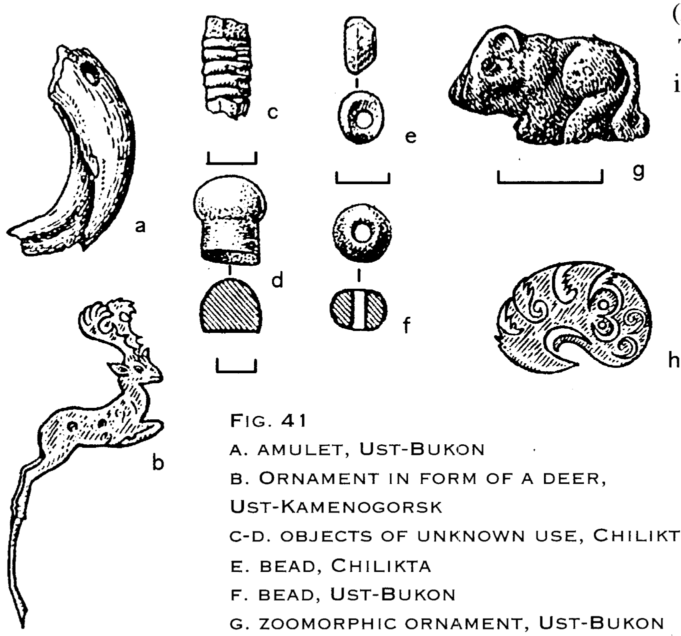


FIG. 41
A. AMULET, UST-BUKON
B. ORNAMENT IN FORM OF A DEER, UST-KAMENOGORSK
C-D. OBJECTS OF UNKNOWN USE, CHILIKTA
E. BEAD, CHILIKTA
F. BEAD, UST-BUKON
G. ZOOMORPHIC ORNAMENT, UST-BUKON
H. STYLIZED ORNAMENT, VAVILONKA
A. (BONE) B-C, H. (GOLD) D. (MARBLE)
E. (CARNELIAN) F. (STONE) H. (BRONZE)

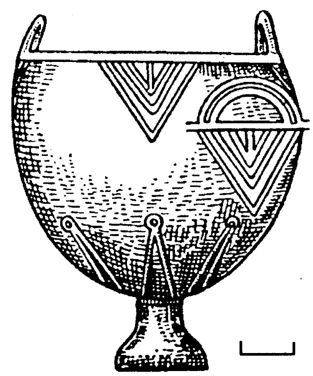


FIG. 42
CAULDRON WITH
SOLAR SYMBOLS
KOK TEREK
(BRONZE)







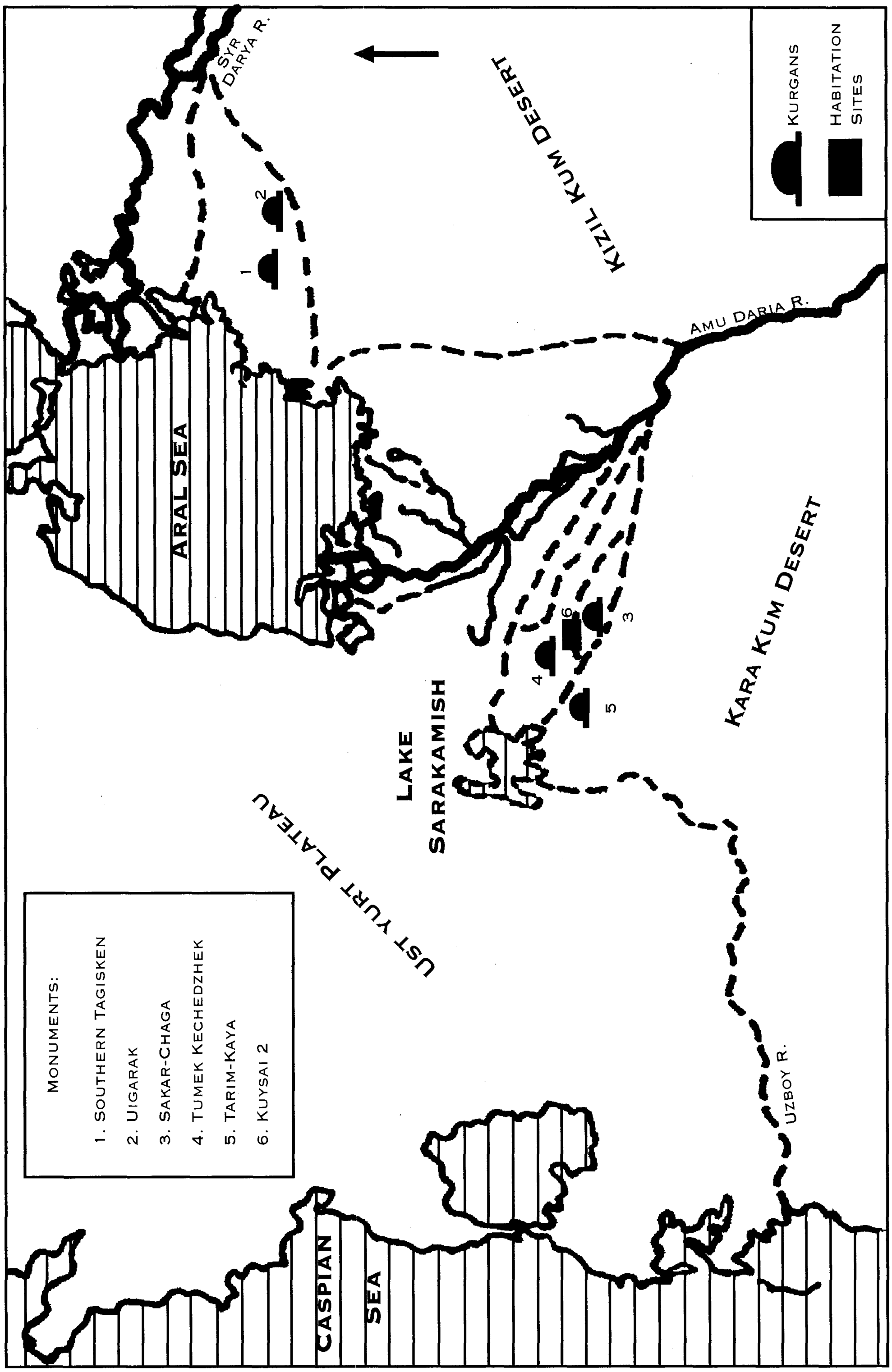
FIG. 43
ZOOMORPHIC DECORATION
A-B, E-G. CHILILTA
C. CHISTYI YAR
D. IZMAILOVKA
H. UST-BUKON
C, D-H. (BRONZE),
ALL OTHERS (GOLD)

the same as that of the previous Bronze Age population (Ismagulov, 1965). However, some skulls of the Saka Period display Mongoloid admixture, particularly prominent among the female skulls. This has led the anthropologists to conclude that Europoid and Mongoloid admixture had occurred only recently (Ginzburg and Trofimova, 1972, pp. 119, 125, 129, 132).

In central and eastern Kazakhstan all data indicate a continuance of the population from the Bronze Age into the Saka Period. Additionally, archaeological and paleoanthropological data reveal that the populations responsible for the 8th-6th century B.C. cemeteries were neither culturally nor physically homogeneous. During the period under discussion rapid cultural and genetic fusing probably took place. It has been emphasized that the northern populations of eastern Kazakhstan differed substantially from those of the southern regions (Kadyrbayev, 1977, p. 255). Inhabitants of the northern Irtysh Valley foothills interacted closely with Altai populations while the southern group gravitated culturally toward the Semirechiye (Bokovenko, Zadneprovsky, 1990, pp. 147-148).



FIG. 44
WARRIORS FIGHTING WITH
BATTLE-AXES
GORYTUS AND BOW SLUNG FROM
THEIR HIPS
PETROGLYPH FROM SAGYR,
EASTERN KAZAKHSTAN



Yablonsky

Map 13. Monuments in the Vicinity of the Aral Sea

Lower Syr Darya and Amu Darya river regions. The lifeways of the early Saka populations living south and east of the Aral Sea were dependant totally on the Amu Darya and the Syr Darya deltas (Map 13). The course of the Syr Darya River was always particularly unstable and its deltas everchanging. One ancient delta, now dry, is located between the present day Syr Darya River and the now dry riverbed of the Inkar Darya. The alluvial plain formed by the Syr Darya River is defined on the west by the Aral Sea basin and on the south by the sands of the Kizil Kum Desert. This plain is crisscrossed by a system of ancient riverbeds, running not only north and south, but also east and west. The northernmost dry river system, the Pra-Kuvan Darya, was a functioning river during the Neolithic and the Bronze Age (3rd millennium to early 1st millennium B.C.

Early Iron Age sites have been discovered farther south along the banks of the Inkar Darya River. The Khorezmian Archaeological-Ethnographical Expedition of the Institute of Ethnography,[4] USSR Academy of Sciences have studied these sites as well as those of the early Saka (Tolstov and Itina, 1966; Vishnevskaya and Itina, 1971; Vishnevskaya, 1973; Itina, 1986. For the most recent summary in English, see Itina, 1990). Among the larger burial complexes are the cemeteries of Southern Tagisken and Uigarak (Fig. 45) where more than 100 kurgans have been excavated. Funeral rites in both complexes are similar and, therefore, are discussed together. In both cemeteries the deceased was placed either on the surface or in an earthen pit. The kurgans measured 30 to 40 m in diameter and were raised over the burials. Today they are between 0.3 to 2.0 m in height. Most often inhumations was practiced. However, occasionally cremation took place.

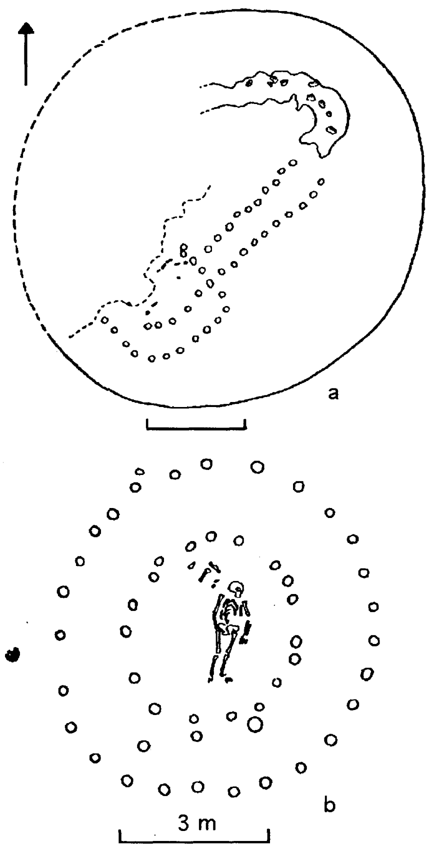


FIG. 45
BURIALS
A. TAGISKEN
B. UIGARAK

In inhumation burials, the deceased generally was laid on the back upon a woven cane mat with the head orientated to the west or southwest. Occasionally they were buried inside a wooden frame structure which was interlaced with twigs and cane. Sometimes the structures were burned during the funeral ceremony. The tomb architecture was generally either round or oval in plan, although occasionally a rare rectangular plan was also found. In some instances, a double row of holes mark the place where posts had been set (Fig. 45). However, the majority of the burials were in simple earthen pits. Structural features divide these burials into four types: 1) Grave pits with wooden ceilings and cane floors. Occasionally the ceiling was set on fire then immediately extinguished with earth so as not to damage the interred. In some graves, a ditch ran along the perimeter of the pit, adjacent to the walls, so that it appeared that the interred lay on a "table." Other graves had holes dug in the corners, but none have yielded any remains of wooden posts (Fig. 46). 2) Low earthen banks and ditches surrounding earth pits. Some chambers found only in Southern Tagisken had wooden ceilings. 3) Pits found only at Uigarak. These are narrow rectangles with brushwood ceilings resting on a pole frame. 4) Grave pits found only in Southern Tagisken. These are rectangular chambers with the corners orientated to the four cardinal points and with a long dromos located at the southeastern side.

The deceased were buried in clothes and headdresses decorated with sewn-on beads and gold plaques. Pottery was placed at the feet of the deceased in both male and female graves. The pottery is of two types: hand-built vessels (Fig. 47 a-k), and those shaped on a potter's wheel (Fig. 47 i-p). The locally made hand-built ware is of fired coarse clay. From the shapes, it appears that these were bowls, basins, pots, mugs, and spouted "tea kettles." The most predominate form have pear-shaped bodies (Fig. 47e). Similar shapes are known in Central Asia during the early Saka period, but are unknown in the material culture of central and eastern Kazakhstan. Vessels made on the potter's wheel, known only in the Uigarak burials, include two bowls covered with a light-colored engobe, a cylindrical vessel of yellowish-white color, and a small gray clay jug. All of these forms have their analogs in southern Turkmenistan where they are generally dated between the 7th-5th centuries B.C. However, some scholars do not rule out an early dating for the Southern Tagisken-Uigarak complex. We assume that the presence of pottery in the Syr Darya River area burials which came from southern regions, is due to the mobility of the nomads who may have brought these pieces back when they made long marches to the Middle East.

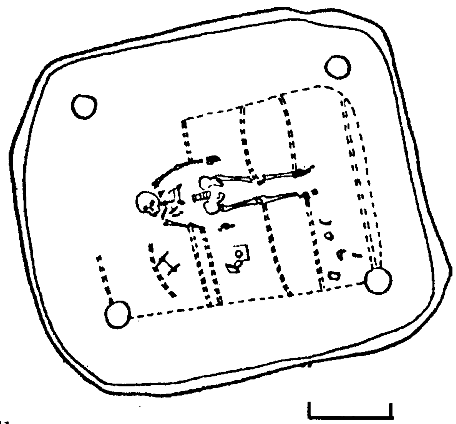


FIG. 46
BURIAL
UIGARAK

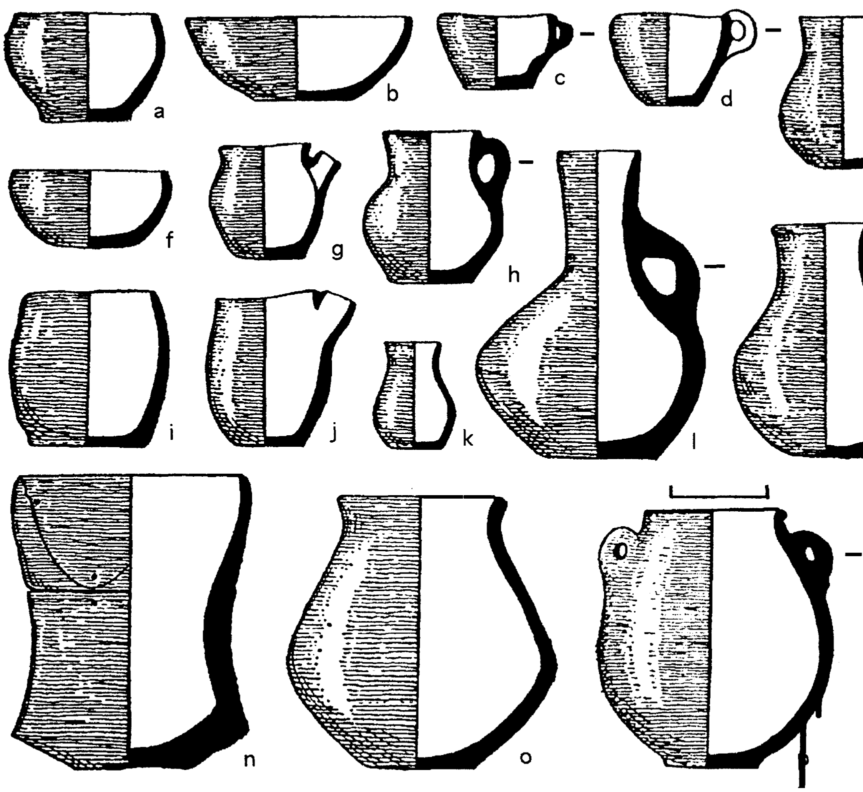


FIG. 47
A-K. HAND-MODELED POTTERY
L-P. WHEEL-TURNED POTTERY

Bronze tools include the familiar knife with a single honed blade and a flat projecting hilt separating the blade from the grip (Fig. 48). Bronze axes were found only at Uigarak (Fig. 49).

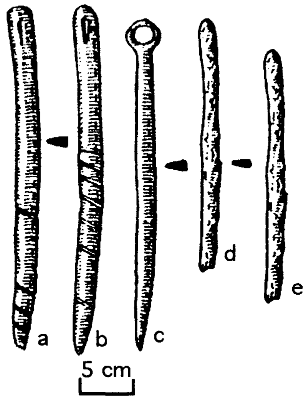


FIG. 48
KNIVES (BRONZE)
TAGISKEN AND UIGARAK

Beads and earrings comprise the majority of decorative items. Beads were carved from carnelian, lazulite, turquoise, and chalcedony, and molded from glass paste. White agate beads with soda-induced decorative design from India indicate long distance trade (Fig. 50). Gold earrings were found exclusively in male graves, one earring per burial. The earrings are classified as large loop, small pendant and small loop, and large pendant (Fig. 51). Widespread in the Eurasian steppes, mirrors with an edge rim and a loop on the reverse were found only in female burials (Fig. 52). This type of mirror had its prototype in Bronze Age Asiatic sites.

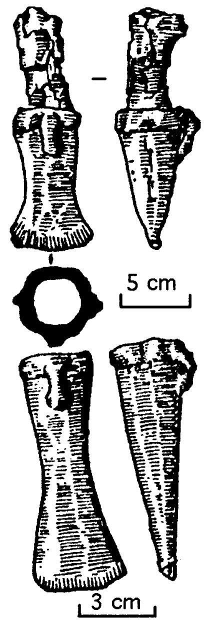


FIG. 49
AXES (BRONZE)
UIGARAK



FIG. 50
CARNELIAN BEADS
IMPORTS FROM INDIA

Two types of cultic stone altars, one with legs and the other without, date to the 7th-5th centuries B.C. (Fig. 53). Within the burials and lying near the altars, pebbles with traces of red paint or arsenic symbolizing fire have often been found. Beak-shaped altars, or, altars shaped in the form of a stylized bird head, are typical only at sites located near the Aral Sea. O.A. Visnevskaya (1973, p. 85) has interpreted female graves with altars as belonging to priestesses and postulated that mirrors found in the same group of graves had a magical nature.

As at other Saka sites, weapons were found in leather quivers, and are represented mainly by arrowheads (Fig. 54). The archer carried his quiver on his left side, arrow tips down. An overwhelming majority of arrowheads are bronze and only one of carved bone was discovered. Some are socketed and bullet-shaped (Fig. 54a), or rhomboid in section (Fig. 54b), while trilobed arrowheads (Fig. 54d) may be tanged or socketed. In the lower Syr Darya River region, as in other Saka sites, both trilobed types were found together. Prototypes for bullet-shaped and rhomboid types belong to the Bronze Age and it is only in the 6th century B.C. that the socketed tri-lobed rrowhead, the so-called "Scythian" arrowhead, appears among the Saka. According to M.A. Itina (1990, p. 41), the "Scythian" arrowheads spread over western Central Asia, and particularly around in the Aral Sea region much earlier than to other parts of the Asian steppe. This may be explained by the geographical position of the Aral Sea Saka and the fact that they traditionally had contact with the west.

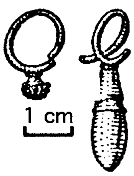


FIG. 51
EARRINGS
(GOLD)

Daggers are found only rarely (Fig. 55) and the shape of their pommel indicates that they have their roots in the Bronze Age. In addition, the eastern Kazakhstan daggers have analogies with those dating to the 7th-6th centuries B.C. from other regions in the steppes. Long iron swords from the

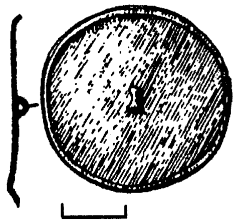


FIG. 52
MIRROR (BRONZE)

Southern Tagisken Cemetery (Fig. 56) belong to the 5th century B.C. One particularly interesting sword found in a wooden sheath (Fig. 56b) was covered with gold foil. The artist had embossed the head of a mountain goat into the gold covering the pommel (Fig. 57), and along the sword blade, fantastic animals resembling wolves were depicted. Another sword may have had a talon-shaped pommel. A fragment of gold plate, stamped with zoomorphic depictions, was recovered from its sheath. One grave yielded a bimetallic bronze and iron axehead.[5]

Typologically, horse trappings are quite varied. Components of the earliest bridles include the three-holed bone psalia, used in conjunction with a jointed bit that has stirrup-shaped rings (Fig. 58). During the same period, bronze psalia with loops were also used with a similar bit. The three-looped psalia, as well as jointed bits with small rectangular stirrup-shaped rings, are known from Uigarak (Fig. 59). All the bit types are characteristic of those found in the eastern regions of the Eurasian steppes. In general, bridles were adorned with various bosses and rings which controlled the leather straps. Many of these functional elements had geometric or zoomorphic ornamentations (Fig. 60).

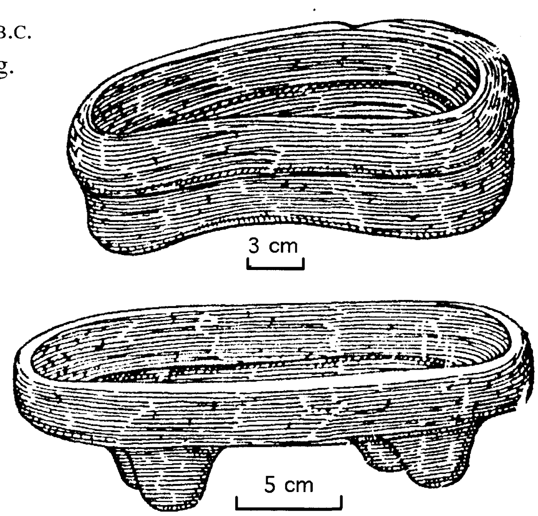


FIG. 53
CULTIC ALTARS (STONE)

The most frequent and also most realistically portrayed zoomorphic depiction is the coiled feline beast of prey, the so-called panther (Fig. 61). This motif has a wide range, particularly among the early Saka sites in Central Asia and Southern Siberia. By the 6th century B.C., the coiled image had become markedly stylized (Fig. 60 c-d). From a Southern Tagisken kurgan four gold plaques in the form of lions couchant were excavated (Fig. 62). Similar images were also the decorative element on girth buckles (Fig. 63). The couchant lion dates to the 7th-6th centuries B.C. while

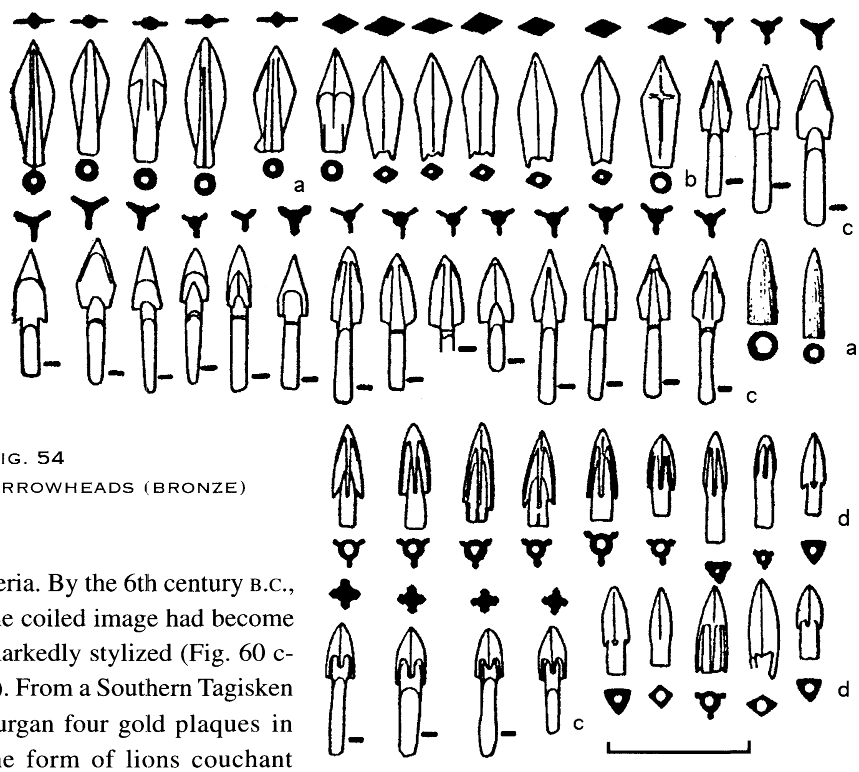


FIG. 54
ARROWHEADS (BRONZE)

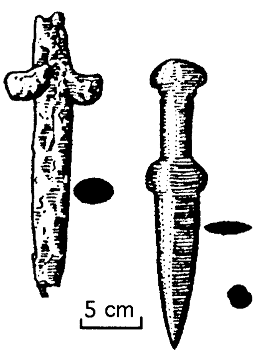


FIG. 55
DAGGERS (BRONZE)

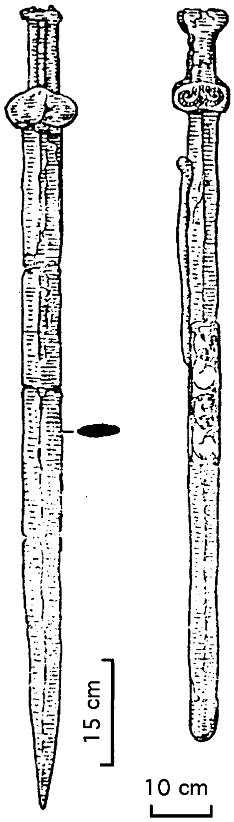


Fig. 56
Long swords
Southern Tagisken

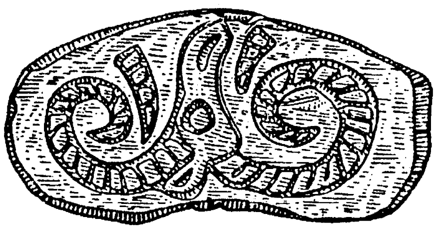


Fig. 57
Pommel cover from sword
(gold)
Southern Tagisken

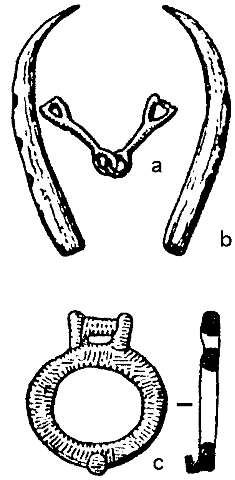


Fig. 58
a. Three-hole psalia
(horn)
b. Jointed bit
(bronze)
c. Buckle
(bronze)

plaques in the form of lions passant are later, dating to the 5th century B.C.

Horse trappings from the Uigarak kurgan were frequently adorned with depictions of a bird, generally only the head (Fig. 64a). Bronze cast plaques in the unusual form of horse heads in heraldic opposition also come from this region (Figs. 60e, 65).

The Scythian stag couchant motif is widespread throughout the steppes. One such gold plaque from this region depicts two stags against the background of a larger feline beast of prey. According to M.A. Itina (1990, p. 43), the stags' muzzles and the form of their eyes are similar to depictions on the early Near Eastern seals. In contrast, the stylization of their horns is similar to the Kazakhstan-Siberian stags of the early Saka period. The couchant animal, in this case the saiga, a steppe ante-

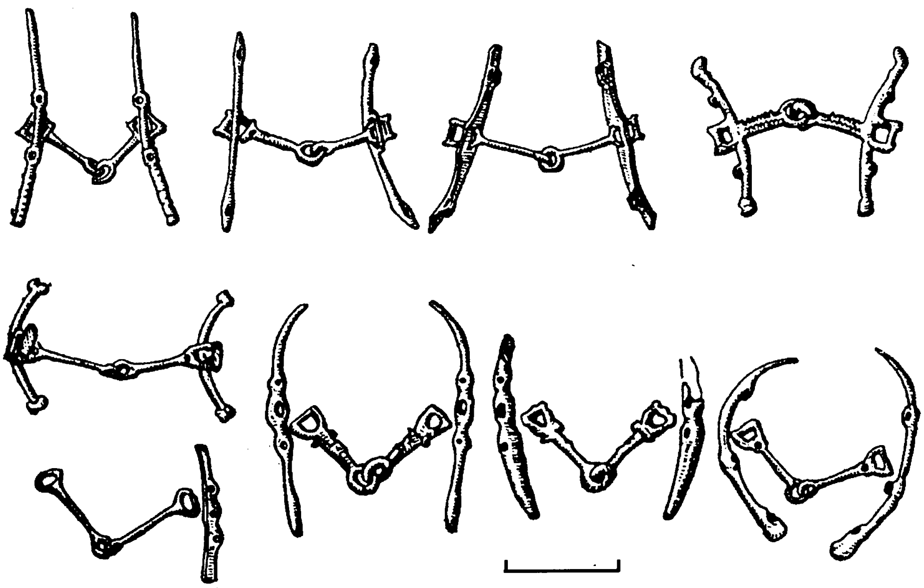


Fig. 59
Various types of
three-hole
psalia and
jointed bits
Uigarak
(bronze)

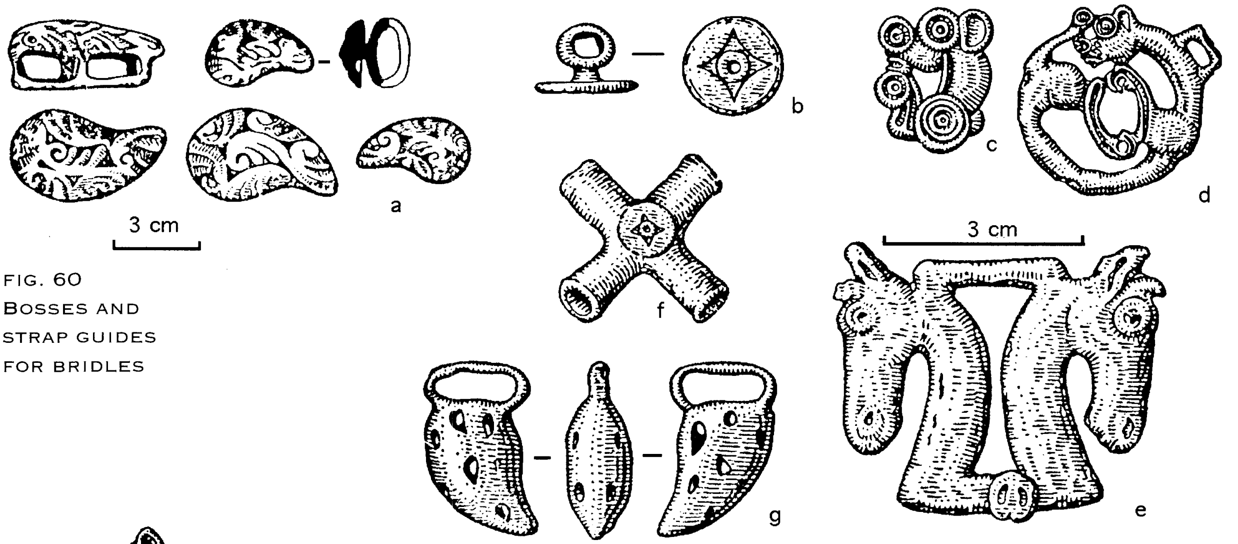


FIG. 60
BOSSES AND
STRAP GUIDES
FOR BRIDLES

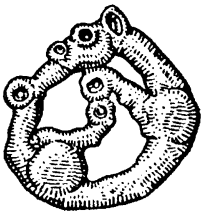


FIG. 61
PLAQUE
COILED FELINE

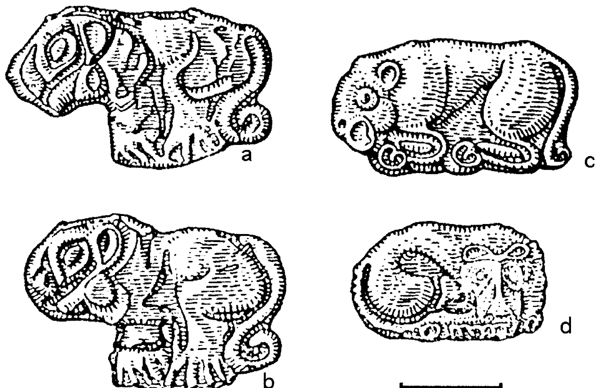


FIG. 62
GIRTH BUCKLES
ZOOMORPHIC MOTIFS

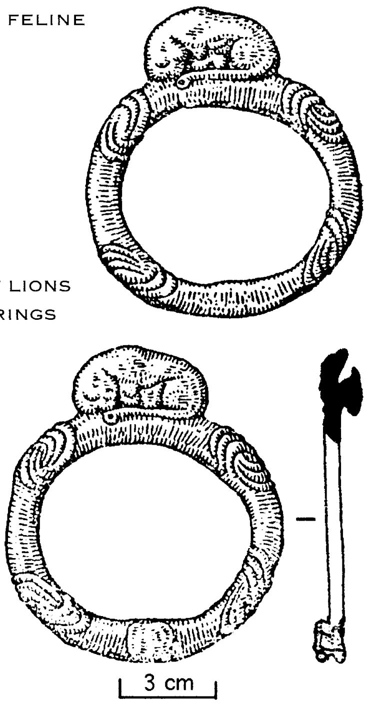


FIG. 63
COUCHANT LIONS
ON GIRTH RINGS
(BRONZE)

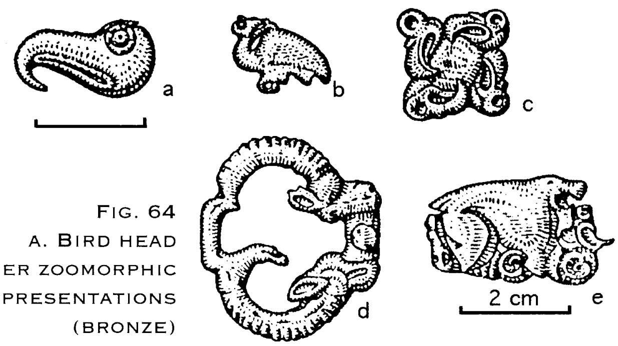


FIG. 64
A. BIRD HEAD
B-E. OTHER ZOOMORPHIC
REPRESENTATIONS
(BRONZE)

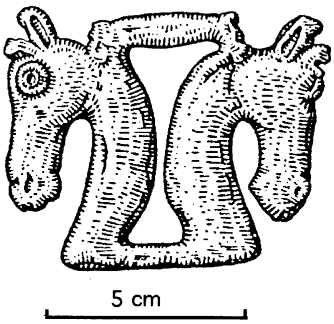


FIG. 65
HORSE HEADS IN HERALDIC OPPOSITION

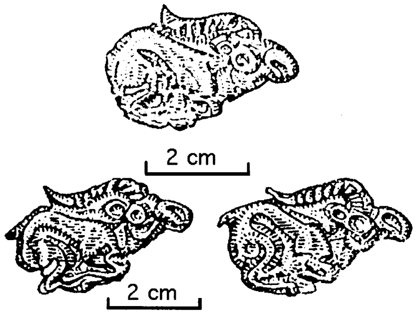


FIG. 66
COUCHANT SAIGA [STEPPE ANTELOPE] (GOLD)



FIG. 67
STAG STANDING ON TIPS OF HOOFS

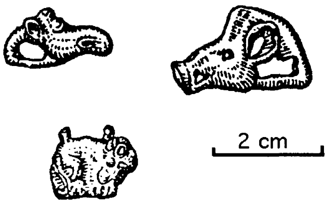


FIG. 68
CAMEL HEAD, BOAR HEAD, OTHER ZOOMORPHIC MOTIF

lope, is also the motif found on gold plaques (Fig. 66). The stag standing on the tips of its hoofs (Fig. 67) also belongs to the early Saka period. Local renditions of zoomorphic motifs—the mountain goat, and boar or camel head—are lively and imaginative renditions (Fig. 68). In addition to a certain zoomorphic realism, the Saka were likely to use zoomorphic juncture to create syncretic images as illustrated by the facing fragment from a wooden sword sheath excavated at Southern Tagisken (Fig. 69).

The lower Syr Darya Saka were extremely heterogeneous. The craniological series from Uigarak is marked with a distinctly expressed Mongolian admixture, which, as in central Kazakhstan, is more prominent among the female skulls (Ginzburg and Trofimova, 1972, pp. 118-119). The initial cultural and genetic heterogeneity of the early Saka population of the lower Syr Darya River area is stressed once again by the presence of burial rites contrasting sharply with those described above. The so-called "slag kurgans" (Levina, 1979) contained cremated bodies which were lying on special earthen platforms. Circular ditches were dug around the burial mound and filled with blocks of slag. Judging by the bronze arrowheads, these kurgans date to the 6th-5th centuries B.C.



FIG. 69
SWORD SHEATH (WOOD)
TAGISKEN

The distinct Mongoloid admixture found in the early Saka population in the lower Syr Darya River area seems to be strong evidence of eastern genetic ties. Moreover, archaeological evidence also confirms cultural contacts with the eastern regions. The lower Syr Darya Saka populations shared common cultural and genetic components with the steppe populations of Central Asia, Kazakhstan, and the Southern Siberian steppes dating from the Bronze Age which accounts for the strong contacts during the Early Iron Age. Moreover, the strong connections between the Saka of the lower Syr Darya River area and

area and those from the southern Ural steppe region have been discussed frequently (Vishnevskaya and Itina, 1971; Vishnevskaya, 1973).

Comparatively recent archaeological excavations in the lower reaches of the Amu Darya River have widened our knowledge of the cultural geography of Saka tribes in this region of Central Asia. They have also revealed contacts and bonds between those Saka and contemporaneous tribes living in the southern Syr Darya River region.

Regarding a bond between the southern Syr Darya Saka and those from the lower reaches of Amu Darya River, little was known until recently because of the lack of sufficient archaeological material from any synchronous sites in the Amu Darya Delta. Some comparatively recent discoveries have changed this situation significantly and have widened our knowledge about the cultural geography of Saka tribes in this region of Central Asia.

Over the millennia the Amu Darya Delta channels have changed numerous times, much like the Syr Darya Delta. During the Neolithic Period (4th-3rd millennium B.C.) the Amu Darya flowed toward the Sarykamysh Lake (Map 13) and then on to the Caspian Sea via the now dry Uzboi River. The portion of the Akcha Darya Delta, located on the right bank[6] of the present day Amu Darya River, was formed during the Middle Pleistocene Period but became dry during the Neolithic Period. It was only in the 2nd millennium B.C. that the Amu Darya River began to flow north into the Aral Sea through the Akcha Darya corridor. As a consequence the Sarykamysh Lake began to diminish. During the Bronze Age (2nd millennium B.C.) the Amu Darya Delta was huge, sometimes discharging into the Aral Sea and at other times into the Sarykamysh Lake. Populations had abandoned numerous settlements and cemeteries in the pre-Sarykamysh Delta prior to the 2nd millennium B.C. when they moved into the southern Akcha Darya Delta. In the early 1st millennium, the pre-Sarykamysh Delta again contained water and the area was inhabited once more.

The 1st millennium ecological changes coincided with the appearance of a Saka population in the region. In the 1970s the Khorezmian expedition investigated a settlement site and cemeteries dating to the 7th-6th centuries B.C. (Vainberg, 1979; for the latest data summary see Vainberg, 1990). The settlements were located along the channel banks and the inhabitants were engaged mainly in raising cattle and horses. Archaeological investigations have also produced evidence of handicraft development and production, including bronze casting. Two types of dwellings were constructed: frame houses built on the surface and subterranean dirt dugouts. The predominant burials were earthen grave pits covered with very low earthen mounds. Today they are almost imperceptible. The deceased generally were stretched on their backs, with their heads orientated west. Some graves were covered with wood and cane. Artifacts from the burials are meager and are represented mainly by ceramic vessels with an occasional rare bead or pendant. All the pottery is hand-built and fired in an open kiln.

Similar pottery forms were also found in the settlement site (Fig. 70). However, this pottery was more versatile. Excavations in the settlement have yielded 60 bronze arrowheads (Fig. 71) whose typological features do not differ substantially from those of the Saka who occupied the Kazakh steppe lands. Archaeologists also discovered a fragment of a horse bit with a stirrup-shaped loop that had been discarded as a casting error (Fig. 72a). Jewelry found in the settlement includes turquoise beads, gold earrings with teardrop-shaped turquoise insets, and white stone pendants in the shape of fangs (Fig. 73). Although no items of the "Scythian triad" were present in the graves, it is not possible to say with certainty whether or not the inhabitants belonged to the Saka culture. However, some individual finds from the settlement do not contradict the supposition that they were Saka.

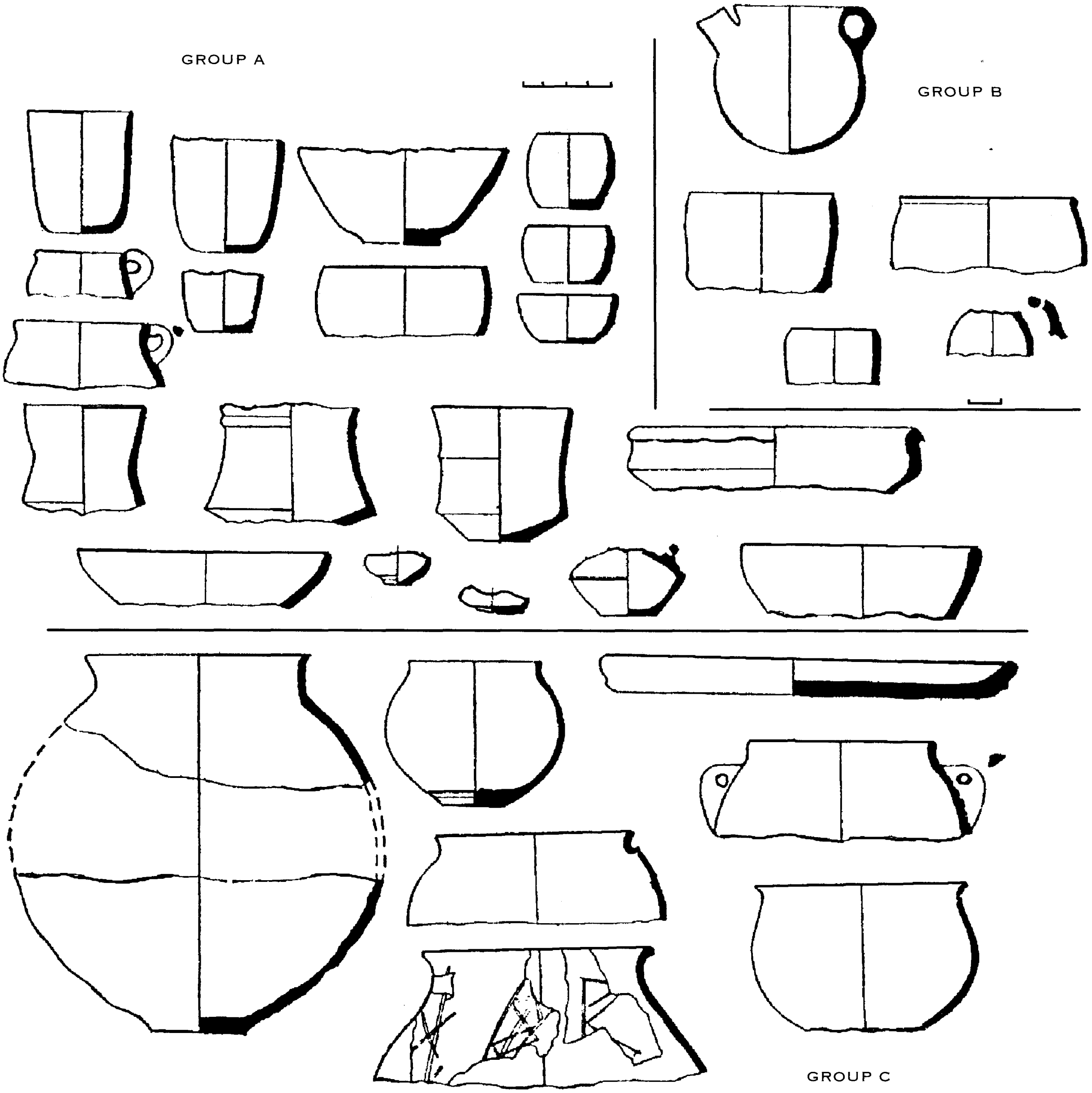


FIG. 70
POTTERY
PRE-SARYKAMYSH DELTA REGION

During the 1980s L. Yablonsky worked with the Khorezmian expedition and conducted systematic excavations of the kurgan cemeteries on Sakar-Chaga Hills located 2.5 km from the settlement site (Map 13). Approximately 70 kurgans belonging to the initial stage of the Early Iron Age were excavated (Yablonsky, 1986; 1991).

The deceased were buried both in soil pits and on the surface. In both types of burials, inhumation and cremation were equally divided. As in the lower Syr Darya River area burials, cane mats had been placed in the earthen grave pits. Some pits had four feigned corner posts. Occasionally

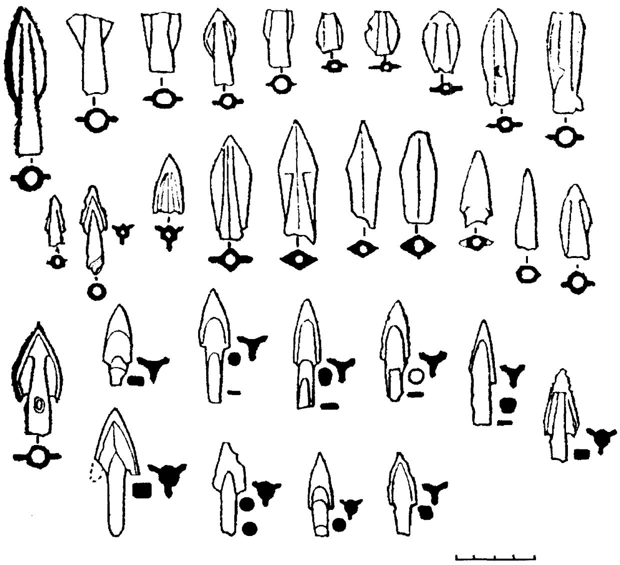


FIG. 71
ARROWHEADS (BRONZE) FROM BURIALS IN THE PRE-SARYKAMYSH DELTA REGION

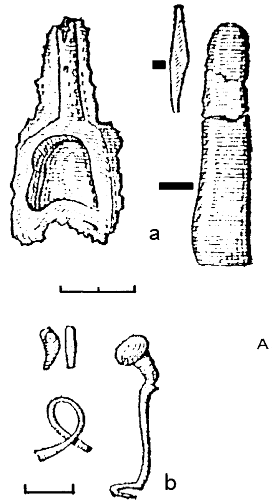


FIG. 72
A. STIRRUP-SHAPED HORSE BIT CASTING ERROR (BRONZE)
B. ITEMS OF UNKNOWN USE

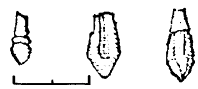


FIG. 73
PENDANTS (STONE)

the cremation was performed inside the burial chamber. However, more frequently, the deceased was cremated on the ground surface inside a circular stony area, or within a round or oval pole-frame structure (Fig. 74). This crematory structure is reminiscent of those found in the Syr Darya River area and, as in this latter region, the crematory fire was extinguished as soil was mounded to form the kurgan. In some instances the deceased was cremated in an unknown location, brought to the cem-

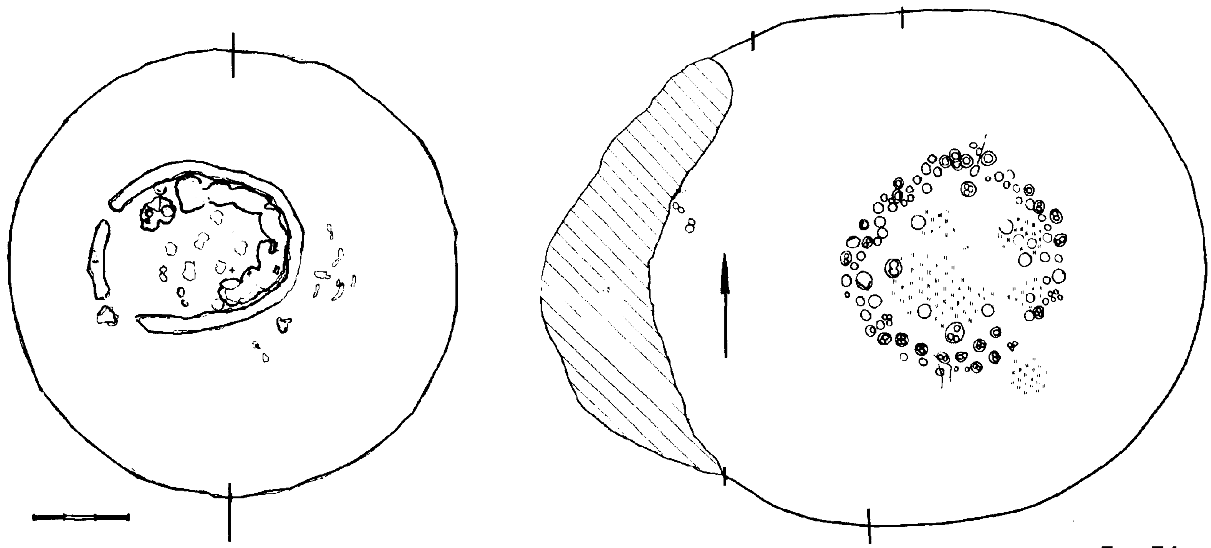


FIG. 74
KURGANS, SAKAR-CHAGA HILLS REGION

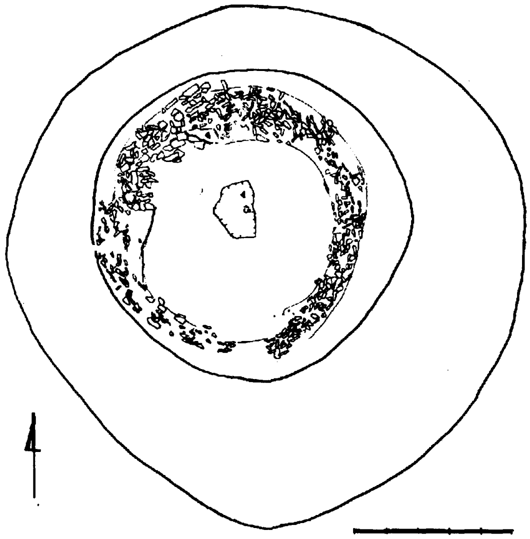


Fig. 75
Cremation burial, Sakar-Chaga hills

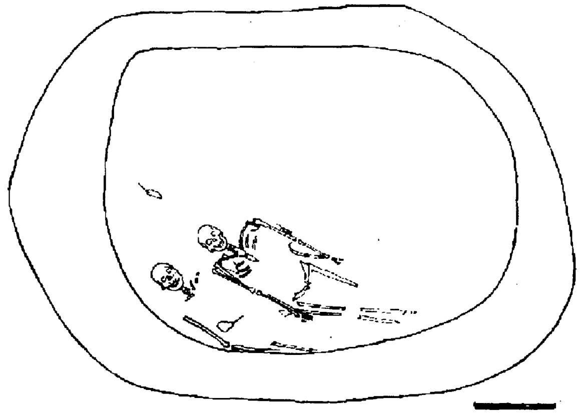


Fig. 76
Synchronous burial, Sakar-Chaga Hills

etery, and then placed in the burial along with accompanying artifacts before the mound was constructed (Fig. 75). In all cases the head of the deceased was orientated to the west. Although some bodies lay contracted on the side (a posture typical of funeral rites of the Bronze Age steppe tribes), in most cases the body was stretched out on its back.

In addition to single burials, multiple skeletons were also placed in a single grave. Multiple burials are divided into two types: 1) paired synchronous (Fig. 76) and 2) consecutive multiple (Fig. 77). In both inhumed and cremated consecutive burials, the earlier burials were moved before the secondary burial took place. In one kurgan with synchronous burials, the area within the stone wall had been divided by poles into two chambers. In one chamber a male had been inhumed and in the other a female had been cremated.

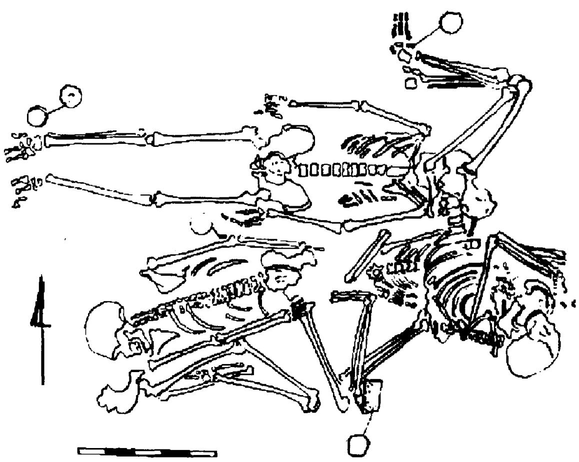


Fig. 77
Consecutive multiple burials
Sakar-Chaga Hills

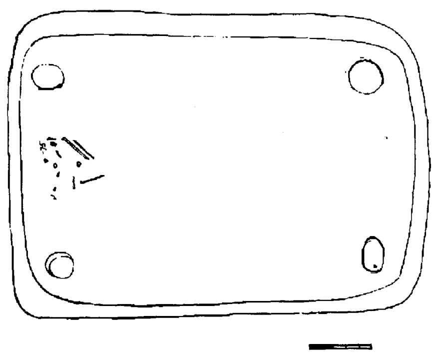


Fig. 78
Burial finds, Sakar-Chaga Hills

Ceramic vessels in all burials do not differ, either in shape or method of manufacture, from those found in the settlement site. The ceramic ware is divided into two types: 1) hand-built local ware fired in an open kiln and 2) wheel thrown,

fired in a closed kiln. These artifacts are similar to Uigarak pottery and have analogies as well with ceramic ware from the Early Iron settlements of southern Turkmenistan.

The most frequent articles found in female graves are stone mortars and pestles, used to grind paint, and pieces of red or yellow arsenic. It seems probable that in everyday life the stone grinders were used to grind grain. However, during the funeral rites the grinder served another purpose and gained a magical quality, perhaps symbolizing the home. As the grinders were found exclusively in female burials, it can be surmised that among the Saka populations of the Amu Darya and Syr Darya river areas the role of "keeper of the home" was performed by the female priestess. In addition to the grinders, some female graves yielded small stone altars, oval and beak-shaped, reminiscent of those from the Syr Darya River area burials.

A pair of long bronze knives was undoubtedly also used for cultic rituals. Previously, such finds are known only from lower Syr Darya Saka cemeteries and Scythian burials from north of the Black Sea. Other finds include unusual massive crescent-shaped iron rods whose faceted surfaces were covered with gold foil (Fig. 78). Objects of everyday use include small iron knives typically found in male burials and conoid-shaped spindlewhorls found in female burials.

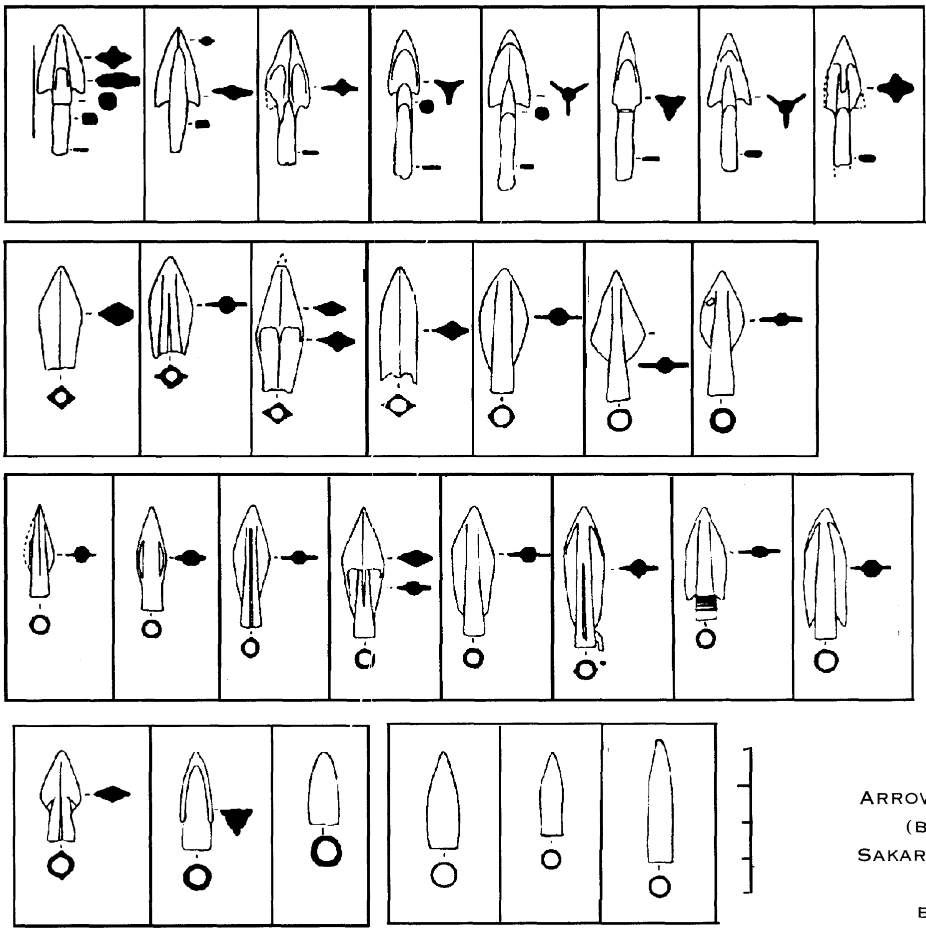


FIG. 79
ARROWHEADS
(BRONZE)
SAKAR-CHAGA
HILLS
BURIALS

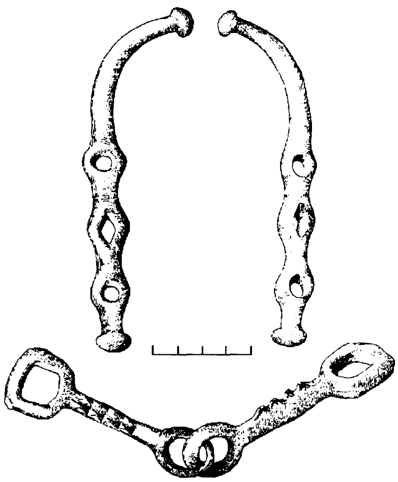


FIG. 80
PSALIA AND JOINTED BIT
(BRONZE)
SAKAR-CHAGA

The majority of the graves were robbed in antiquity. However, some weaponry and applied art objects have survived until now. Like in other Saka cemeteries, arrowheads are the most frequent weaponry finds. One grave yielded 30 arrowheads and another yielded 66 arrowheads. Most were bronze, but some were carved bone of a bullet-shape. Using the method of attaching the head to the shaft as a criterium, they can be classified as socketed or tanged (Fig. 79). All of the arrowheads have their prototypes in Bronze Age steppe sites, and according to typological features, can be dated to the late 8th-7th centuries B.C. The earlier dating is confirmed by the absence of socketed, trilobed "Scythian" arrowheads which became widespread in the areas under discussion in the 6th century B.C.

In one grave, presumably belonging to a military person, in addition to a group of such arrowheads, horse trappings were also excavated (Yablonsky, 1990). The bridle was composed of a bronze jointed bit, bronze psalia (Fig. 80), bronze rings to hold strap crossings, and bronze plaques for straps (Fig. 81). Two bronze buckles, fashioned in the classical animal style tradition (Fig. 82) depict coiled felines of prey (panthers). These buckles are absolutely analogous to those from the Uigarak Cemetery.

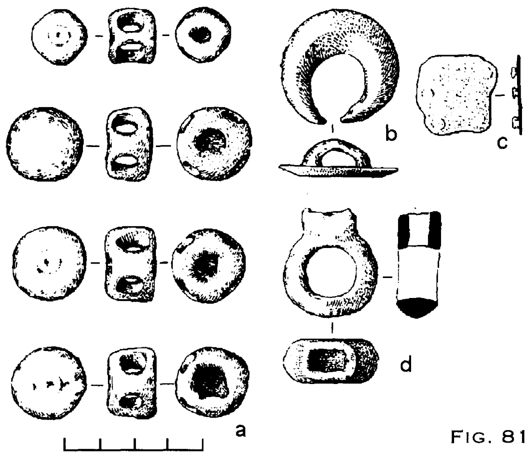


FIG. 81
STRAP GUIDES
(BRONZE)

However, a plaque, completely without parallel, (Fig. 83) of a coiled feline image placed in the center of a solar rosette was found. This plaque was affixed to the crownpiece of the bridle. Several other plaques, each depicting the head of an unusually stylized fantastic monster, also without parallel (Fig. 84) have been found. The beast has round, pierced ears (probably depicting a bear) and a huge beak with enormous fangs. This representation may well be the prototype for the famous Scythian griffin. A beautiful example of the animal style is the realistically portrayed heraldic depiction of boars carved on a bone finial (Fig. 85). A comparative analysis (Yablonsky, 1985) has shown that the closest stylistic analogues of this motif are found on stone stele from the Arzhan Kurgan in Tuva. Other bridle adornments included boar fangs (Fig. 86) and massive bronze buckles (Fig. 87a).

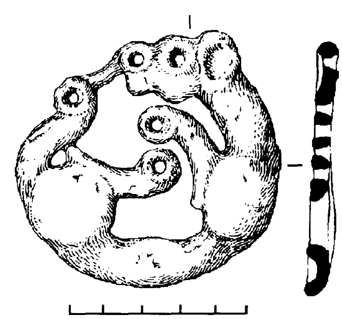


FIG. 82
COILED FELINE
PLAQUE
(BRONZE)

Jewelry from the Sakar-Chaga Hills burials includes carnelian, turquoise, black stone and bronze beads, sheath clasps carved from turquoise (Fig. 88), and bronze (Fig. 89) and gold pendants with teardrop-shaped turquoise insets (Fig. 90). Fragments of such pendants were also found in the level of a contemporary settlement located 2 km from the cemeteries.

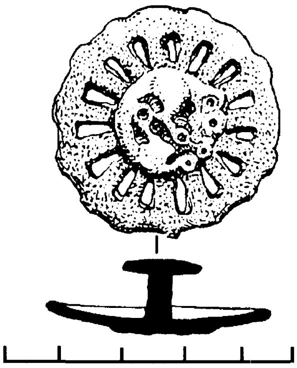


FIG. 83
PLAQUE
COILED FELINE
PLAQUE
(BRONZE)
SUN SYMBOL

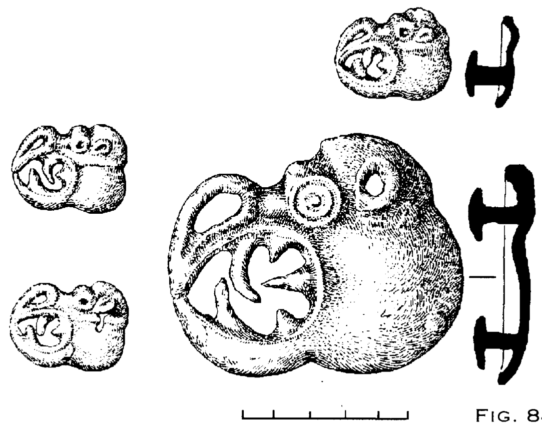


FIG. 84
PLAQUES
(BRONZE)
STYLIZED FANTASTIC
MONSTERS

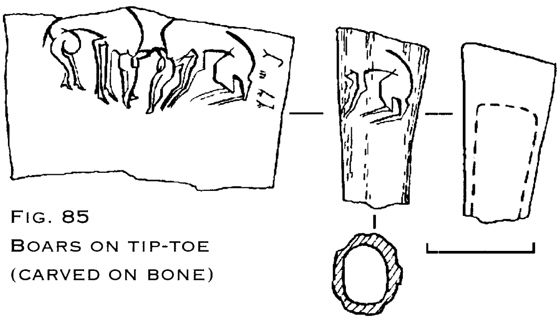


FIG. 85
BOARS ON TIP-TOE
(CARVED ON BONE)

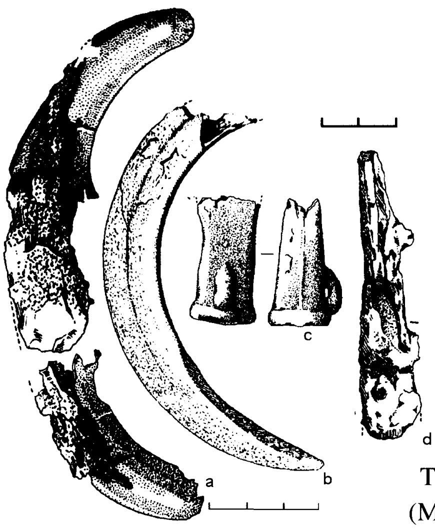


FIG. 86
AMULETS
(BOAR
FANGS)

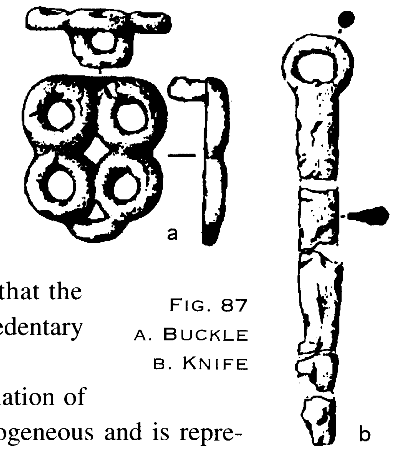


FIG. 87
A. BUCKLE
B. KNIFE

The graves, and also the settlement, yielded bones of wild and domesticated animals, birds, and fish. The domesticated animals—sheep, cows, and horses—testify to the fact that the Amu Darya Saka lived a semi-sedentary or sedentary way of life.

The physical type of the population of this region was extremely heterogeneous and is represented by two main crani-ological variations. The first, the dolichocephalic Europoids, have broad and low faces, low and wide orbits, and sharp facial profiles. This physical type is represented in the Tumek-Kichijik Cemetery. This cemetery is located about 15 km west of Sakar-Chaga (Map 13). Approximately 20 burials dating to the 7th-6th centuries B.C. were excavated at the Tumek-Kichijik Cemetery. Although ceramic types found in the burials were the same as at Sakar-Chaga, none of the Scythian triad objects were found and, moreover, the physical type of the population was completely different. People of similar physical appearance as those from the Tumek-Kichijik Cemetery formed the basis of the Bronze Age population who occupied the lower Volga River and southern Ural steppe areas. The second craniological variation is characteristic of the cemeteries of the Sakar-Chaga highland. These skulls are

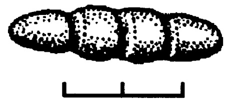


Fig. 88
Sheath clasp
(turquoise)

mesobrachiocephalic with moderately broad and relatively high faces. Some skulls are marked by flatness of their facial bones, exhibiting typical Mongoloid racial features. Skeletal material found in the contemporaneous Uigarak Cemetery is of a similar type. It is noteworthy that skeletal remains from the population groups dating to the Late Bronze Age and occupying areas of Southern Siberia and the Altai Mountains carried similar physical traits.

Although the banks of the Uzboi River and the Zauzboi Plateau have been thoroughly surveyed (Yusupov, 1986), up to the present time, burial complexes dating to the 8th-6th centuries B.C. have not been located. Hence, the pre-Sarykamysh Delta of the Amu Darya River remains the westernmost area of Saka tribe settlement. Only isolated sites belonging to the 7th-6th centuries B.C. and which could be described as being Saka are known on the outskirts of the Tashkent oasis and in southern Kazakhstan. An excavated kurgan, located on the right bank of the Amu Darya River, contained a circle of charcoal placed upon a cane mat. Other artifacts found on the mat include an iron dagger with a bronze finial, bronze arrowheads of various types, a whetstone, an iron knife, a belt buckle, and a bronze ring (Maksimova, 1968). Ascribed to this group are two chance finds: a bronze knife with a bird head on the handle and a bronze celt (Stavinsky, 1955).

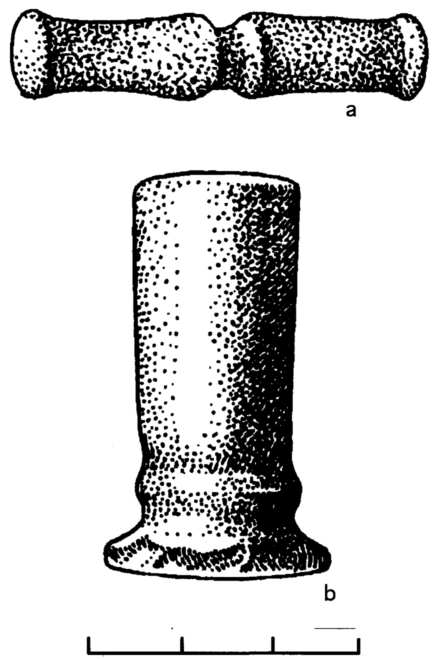


Fig. 89
Jewelry elements
(bronze)

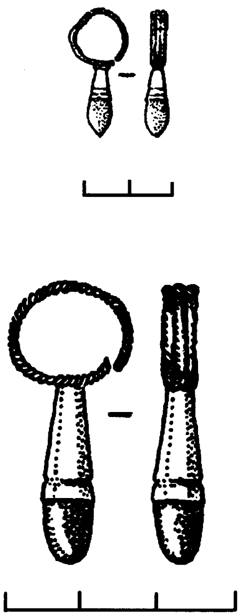
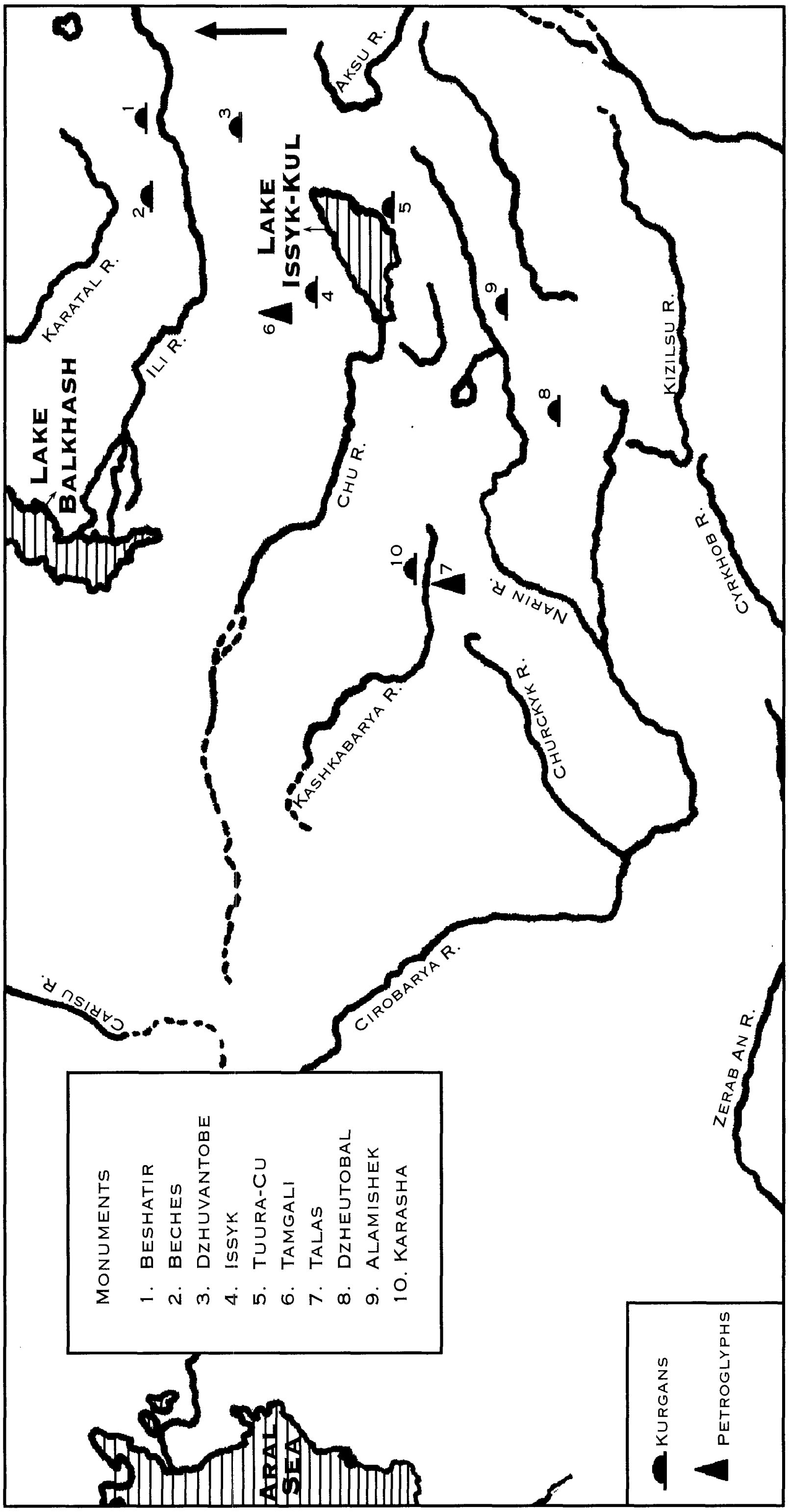


Fig. 90
Gold earrings
with turquoise
insets



Yablonsky

Map 14. Semirechiye Monuments

The Tien Shan Mountains and the Semirechiye. It has been calculated that approximately 1000 kurgans dating to the 1st millennium B.C. have been excavated in the Semirechiye (Seven Rivers) area (Map 14). Due to the extremely large size of the kurgans belonging to tribal nobility are especially conspicuous. A general work on the history and culture of the Saka and Usun of the Semirechiye was prepared by K.A. Akishev and G.A. Kushayev (1963). The beautiful archaeological material from the "Gold Man" Issyk Kurgan was published in a monogram (K. Akishev, 1978) and the same material was the basis for a monograph on the arts and mythology of the Saka (A. Akishev, 1984).

The earliest Saka sites in this region are dated to the 8th-7th centuries B.C. The three main types of burial chambers in the kurgans of the Semirechiye and the Tien Shan Mountains have been classified as simple rectangular ground pits, ground pits with side niches, and stone boxes (latest data summary, Zadneprovsky, 1990) (Fig. 91). The latter provides the most vivid reflection of the survival of Bronze Age traditions. A group of sub-kurgan stone box graves, dating to the earliest period, are in the Bizhe River valley. Four bridle sets were excavated adjacent to the tombs. Each included three-hole psalia, bits with stirrup-shaped ends, and finials cast in the form of standing mountain goats (Fig. 92).

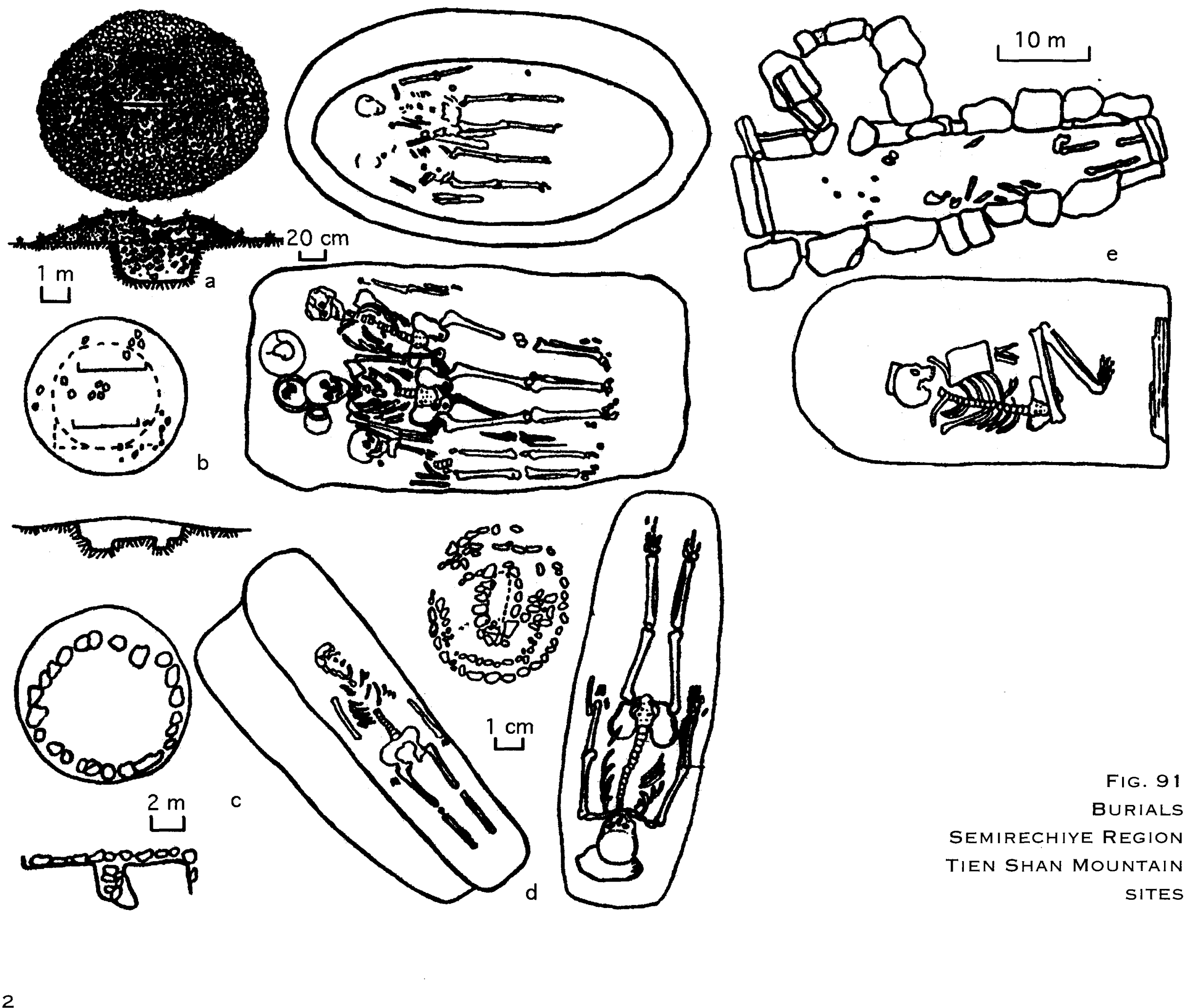


FIG. 91
BURIALS
SEMIRECHIYE REGION
TIEN SHAN MOUNTAIN
SITES

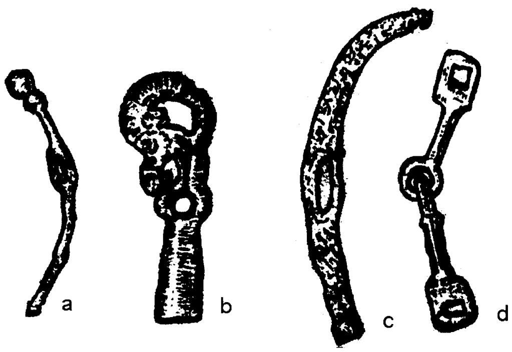


FIG. 92
A-C. THREE-HOLE PSALIA
B. FINIAL WITH MOUNTAIN GOAT
D. JOINTED BIT

Orientation of the deceased within the kurgans is not uniform as the skeletons have been found with heads to the west, northwest, and northeast. In some instances a riding horse was found buried next to the grave. Ritual food, especially mutton, accompanied the deceased. Artifacts consist of pieces of horse harness, bronze and iron knives, bronze and bone arrowheads, wooden and bone combs, ceramic vessels, and accidental finds of bronze and iron daggers and arrowheads.

In the middle reaches of the Talas River, narrow ground pits with side niches, separated from the entrance pit by stone slabs, and dating to the 6th-5th centuries B.C., have been studied (Fig. 91c). The burials contained long iron pins, hand-built vessels with spouts and handles, a bronze knife with the handle in the form of a beast's head with bared teeth (Fig. 93), silver decorations, and beads.

In the 19th century A.D., approximately 20 items from bridle sets (Fig. 94), all dating to the 8th-6th centuries B.C., were found on the shore of Lake Issyk-Kul. The objects probably came from a destroyed kurgan (Bernshtam, 1949; Grayaznov, 1983). Daggers (Fig. 95), bronze two-lobed arrowheads (rhomboid in section (Fig. 96)), and girth buckles (Fig. 97) which were chance finds, belong to the same era.

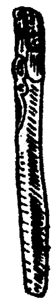


FIG. 93
KNIFE
(BRONZE)

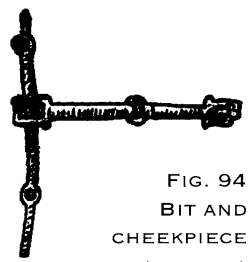


FIG. 94
BIT AND
CHEEKPIECE
(BRONZE)

It should be stressed that close parallels exist between the Saka material culture from the Semirechiye and the Tien Shan Mountains on one hand, and from central Kazakhstan, the Altai Mountains, and the lower Syr Darya River region on the other.. However, the Saka pottery from the Semirechiye is notable for its round-bottom shape, a type unknown in other areas of Soviet Central Asia and Kazakhstan.



FIG.95
DAGGER
(BRONZE)



FIG. 96
BILOBED
ARROWHEAD
(BRONZE)

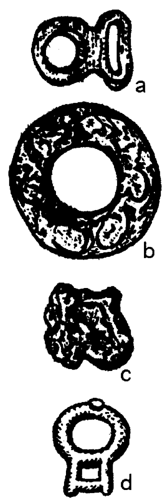
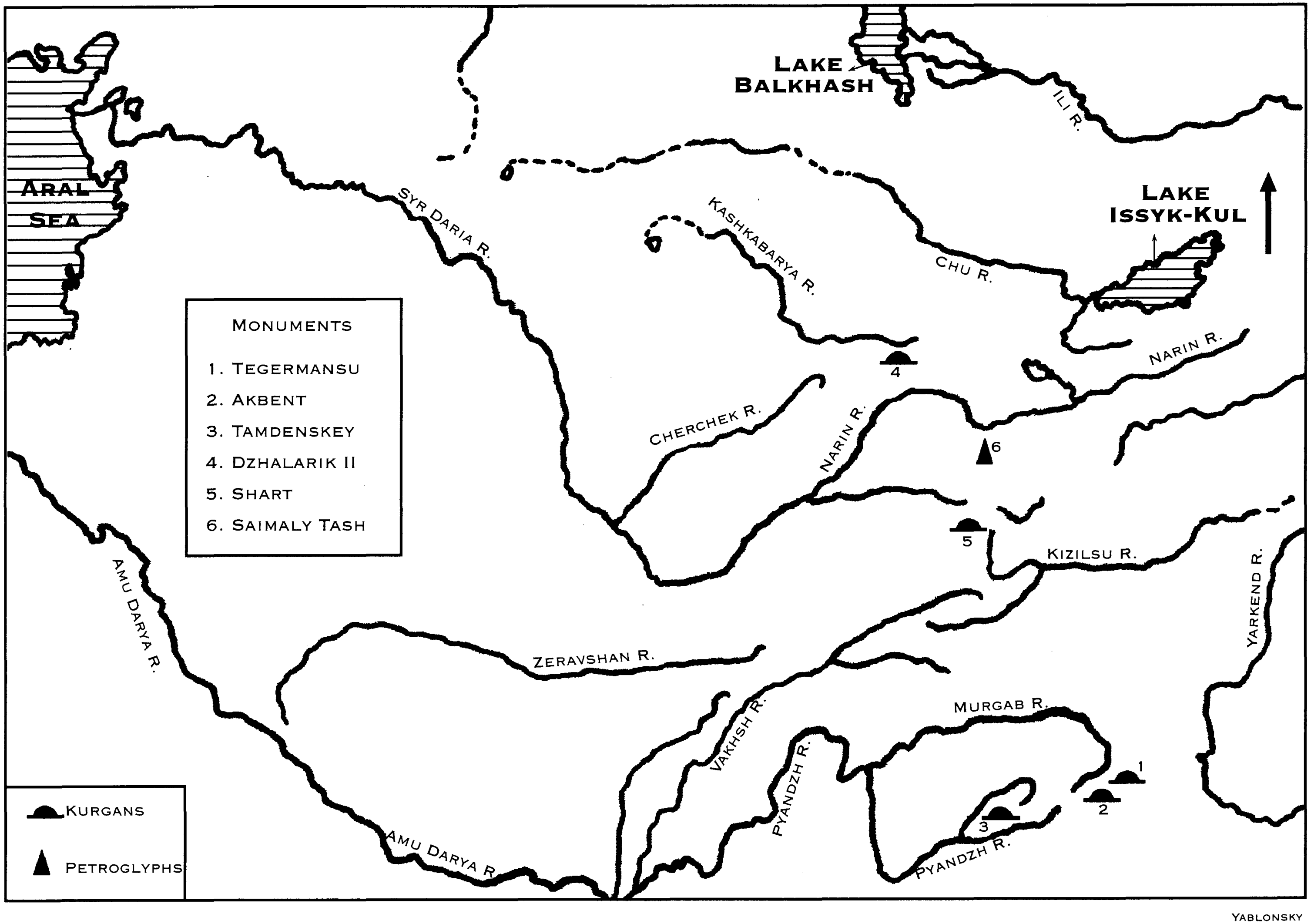


FIG. 97
STRAP GUIDES
(BRONZE)



Map 15. Monuments in the Tien Shan Mountains, Ferghana Valley and the Pamir Mountains

Ferghana Valley, Tien Shan, and Pamir Mountains. Many sites dating to the Saka Period have been discovered in the valleys surrounding Ferghana (Map 15). About 150 kurgans dating to the 5th-3rd centuries B.C. compose the necropolis Djalaryk II (Zadneprovsky and Kozhomberdiev, 1984). Here large kurgans, up to 40 m in diameter, were conspicuous against adjacent smaller mounds. The deceased were buried in earthen graves, stretched on their backs, heads orientated west. Accompanying weaponry included iron daggers, a socketed axe-head, and sheathed arrowheads. Women's burials yielded gold, silver, and bronze decorative objects, including some in the best animal style tradition. Up to 5 hand-built vessels, some ornamented, were found in each tomb, while imported pottery constitutes a separate group. A legless, oval stone altar was also found. Objects from other kurgans in Ferghana reinforce the fact that the Saka were skillful artisans and jewelers.

In the alpine areas of the Pamir and the Altai Mountains, the Saka Period sites were first studied by A.N. Bernshtam (1952) and excavations continued under the direction of B.A. Litvinsky (data summary: 1972), A.M. Mandelshtam, and others. In general, small necropolises, with only a minimal number of kurgans, are scattered over a broad area and situated adjacent to pastures (Map 15). The earliest sites have been dated by some researchers to the 8th-6th centuries B.C. (Zadneprovsky, 1990). Kurgan 10, in necropolis Pamirskii I, illustrates the material finds from this region. The earthen grave pit was covered with four pairs of mountain goat horns. The deceased male lay on his left side, with his head orientated to the east (Fig. 98). A wooden quiver, covered with leather, contained arrows with bronze, iron, bone, and wooden arrowheads (Fig. 99 a-d). Two iron daggers, and wooden fragments of an apparatus to start a fire, lay next to the quiver. The Pamir daggers are classical Saka in form (Fig. 100). The grave also contained a piece of leather to which a bronze plaque in the form of a mountain goat may have been attached (Fig. 101), and other bronze-cast zoomorphic plaques (Fig. 102). Undoubtedly, all of these pieces originally ornamented the costume of the deceased. Bronze bits and psalia, the remains of a leather bridle (Fig. 103) were placed behind the horseman's back. Analogies to the bridle are found in Southern Siberia, central Kazakhstan, and the lower Syr Darya River region. In contrast, another kurgan in the same cemetery contained a skeleton contracted on its right side (Fig. 104). It was accompanied by an iron dagger (Fig. 100b), bronze and wooden bows, and a small wooden table called a dastarkhan (Fig. 105).

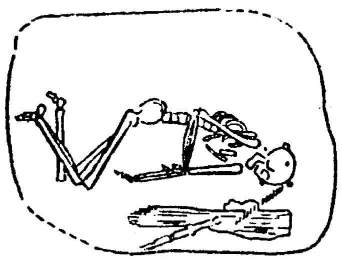


FIG. 98
BURIAL
TAMDINSKII CEMETERY
PAMIR MOUNTAINS

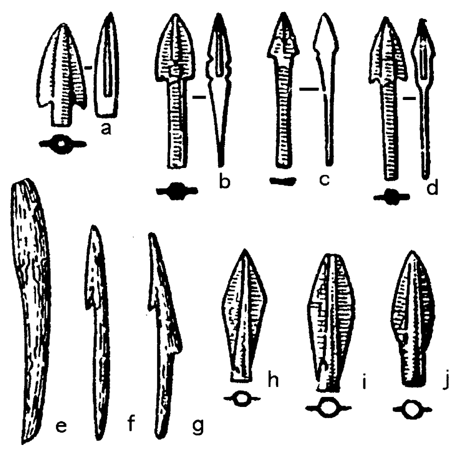


FIG. 99
A-D, H-I. ARROWHEADS
E-G. TOOLS
TAMDINSKII CEMETERY
PAMIR MOUNTAINS

In the necropolises of the 8th-6th centuries B.C. the dead were buried in shallow pits which were covered with stone slabs or poles. In the majority of cases they were placed in a contracted position on their side with their heads orientated east (Fig. 106). The accompanying artifacts included clay and bronze vessels (Fig. 107), weapons and horse harnesses, and bimetallic (bronze and iron) daggers which may be adorned with a zoomorphic grip and pommel (Fig. 100a).

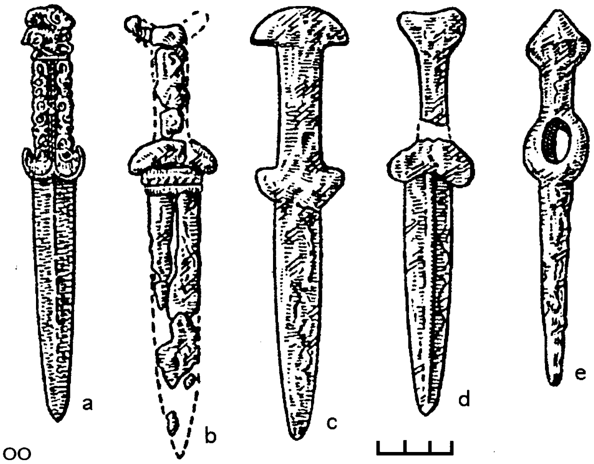


Fig. 100
Daggers (bronze)
Tamdinskii Cemetery
Pamir Mountains

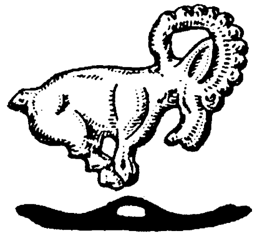


Fig. 101
Mountain goat
Bronze plaque
Tamdinskii Cemetery
Pamir
Mountains

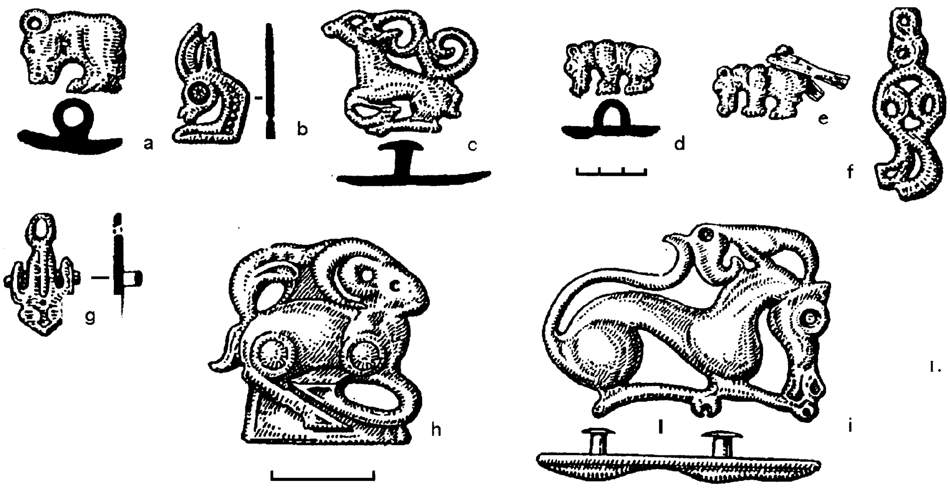


Fig. 102
Zoomorphic plaques
I. illustrates abstract
zoomorphic juncture
Tamdinskii Cemetery
Pamir Mountains

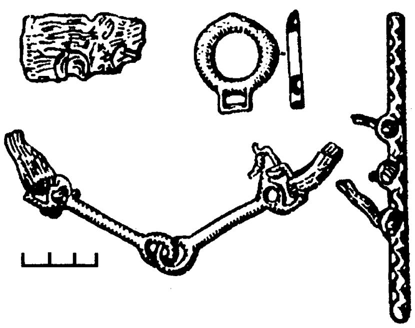


Fig. 103
Bridle bit
psalia,
girth buckle
plaque
(Bronze)

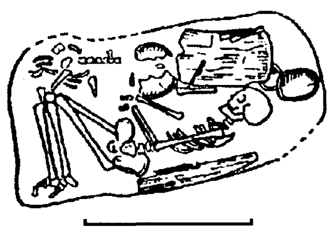


Fig. 104
Burial
Tamdinskii Cemetery
Pamir Mountains

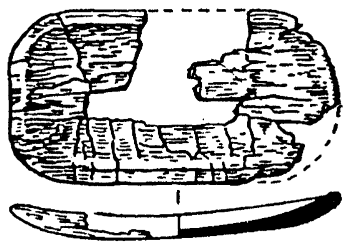


FIG. 105
DASTARKHAN
WOODEN TABLE

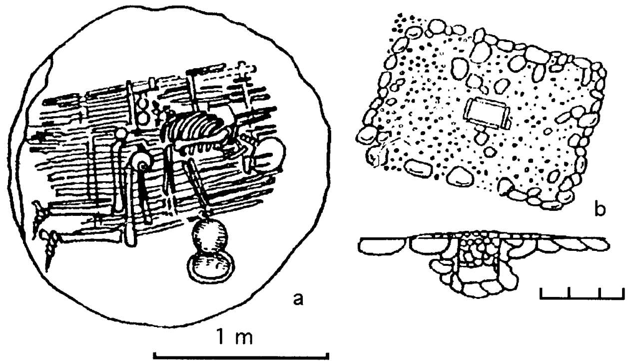


FIG. 106
BURIAL
AKBEIT CEMETERY
PAMIR MOUNTAINS

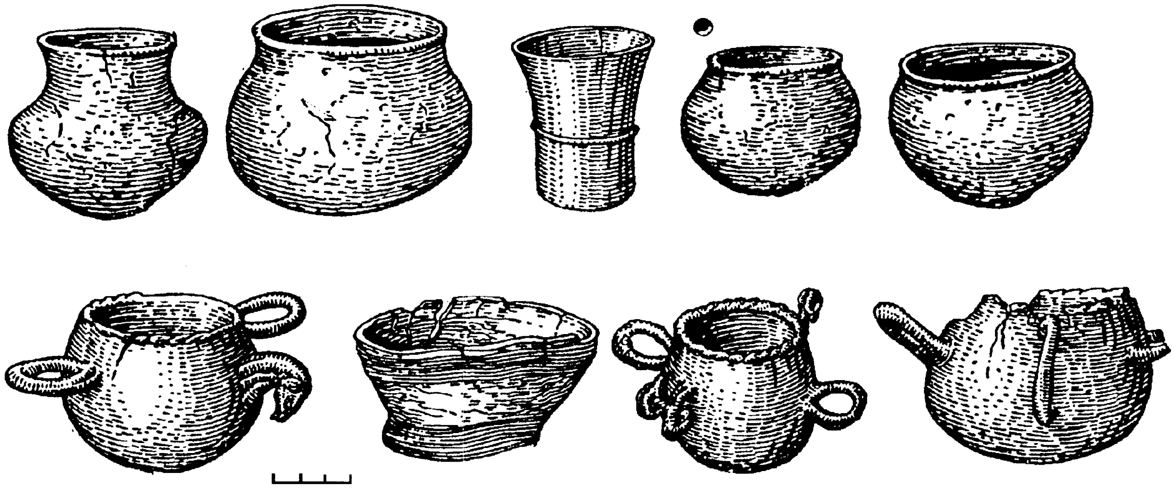


FIG. 107
CLAY AND BRONZE VESSELS
8TH-6TH CENTURY B.C.

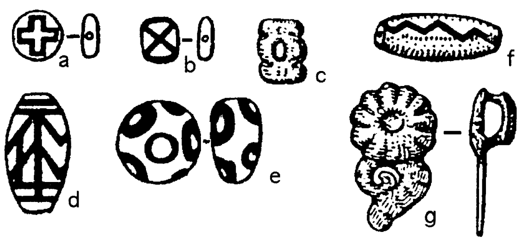


FIG. 108
BEADS
(GLASS AND STONE)
D. IMPORT FROM INDIA

Female burials contained bronze, iron, and glass bracelets, and a variety of beads including carnelian with engraved ornamentation of Indian origin (Fig. 108). Large ornamented shells, with holes drilled in the center covered the eyes of the deceased. These were also imports from India. As in other areas of the Saka world, zoomorphic images underwent a noticeable stylization during subsequent centuries (Fig. 102 h-i).

Eastern Turkestan. Very recently, results of excavations conducted by Chinese archaeologists in Xinjiang province in eastern Turkestan have been revealed. Data indicate that the area was also inhabited by Saka populations. Both single and multiple burials have been excavated from either circular or rectangular kurgans. Burial customs included both cremation and inhumation. The deceased were stretched on their back or side, legs and arms flexed. In some cases, the deceased were cremated in another location before being brought to the kurgan location. Saka type arrowheads and artifacts made in the animal style tradition were included in the burials (data summary: Litvinsky, et al., 1985). According to one hypothesis, as Iranian-speaking tribes from Central Asia dispersed in the late 2nd or early 1st millennium B.C. the precursors of Saka populations arrived in this region. The Xinjiang Saka population was thus a part of an extended group of Saka tribes (Litvinsky, 1985).

In physical appearance the Saka population of the Tien Shan and the Altai Mountains were not homogeneous (data summary: Ginzburg and Trofimova, 1972). In general, the Saka of the Tien Shan Mountains belong to the brachycephalic Europoids with a slight Mongoloid admixture found primarily among the females. The Saka of the western Altai Mountain range, northeast of the Pamir Mountains and south of the Tien Shan Mountains, had narrower crania and relatively small facial bones. They were more representative of the Europoid race with only a small Mongoloid admixture. The anthropological base of the Tien Shan Saka populations appears to have descended from Bronze Age steppe tribes originally from Kazakhstan and Southern Siberia, while, in contrast, the cranial variation of the Altai population is similar to that which is characteristic of contemporary Semirechiye tribes.

In the eastern Pamir Mountains, the homogeneous Saka population were dolichocephalic Europoids with narrow and very high faces. Little doubt remains about the origin of the Pamir Saka. According to V. Ginzburg, they were carriers of the Mediterranean complex of cranial traits. The distinct physical differences between these tribes, and their contemporary neighbors occupying the Semirechiye and regions to the north, testify to the biological, but not cultural, isolation of the Pamir Saka.

Having generally outlined the material culture of the Central Asian Saka, we will now turn to the main factors that have affected their ethnic and cultural geneses.

Notes

Chapter 14

The Material Culture of the Saka and Historical Reconstruction

1. Maral is a species of deer, cervas elaphus sibericus, and lives in the Kazakh steppes. Its horns were thought to possess strong medicinal elements. (Ed. note)
2. Iran and Afghanistan.
3. Northern Caucasus.
4. The cotemporary name for this body is the Institute of Ethnology and Anthropology.
5. Bimetallic tools and weapons, including axe-heads, are also known from Luristan (Iran) dating to the 6th century B.C. See P.R.S. Moorey, *Ancient Persian Bronzes in the Adams Collection*, London, 1974, pl. 9. (Ed. note)
6. Facing in the direction the river flows, the right bank is on the right, etc.

CHAPTER 15

SOME ETHNOGENETICAL HYPOTHESES

LEONID T. YABLONSKY

Saka as successors of the Bronze Age steppe communities. Soviet archaeologists have maintained the concept that cultural and racial similarities existed between the earliest Eurasian steppe populations. In Kazakhstan, Southern Siberia, Central Asia, the Volga River region, and in the southern Ural steppes, the formation of a community with specific traits began in the 3rd millennium B.C. Eneolithic Period. Specifically, the semi-spherical earthen mounds or kurgans first appeared in the Eurasian steppes during the Late Eneolithic Period and continued to be the characteristic trait of burial rites among the inhabitants of the steppe lands into the Middle Ages (mid- to late 1st millennium A.D.) During the Bronze Age a close interaction took place between the Timber-Grave Culture of the western steppes, and the Andronovo people of the eastern steppes (Kiselev, 1949).

From the point of view of ethnic genesis, each of these cultural components was far from being homogeneous. For example, within the eastern Bronze Age community, at least two local variations of the Andronovo Culture are represented: the Alakul-type who practiced cremation and the Fedorovo-type who practiced inhumation. The complex interaction which occurred between these groups resulted in the appearance of new and very original syncretistic local variants of the archetypical communities. In the semi-desert region of the south Aral Sea cultural groups also formed which were based upon a consolidation of eastern and western Bronze Age cultural components (Itina, 1977).

A growing tendency toward cultural integration of all the populations of both steppe regions was also paralleled by the development occurring with the processes of cultural differentiation. The integration took place because of shared common technological achievements. Beginning in the mid-2nd millennium B.C. and originating in the Andronovo Culture, the base for metallurgical technology is present in Central Asia, Kazakhstan, the Altai Mountains and the Ural Mountains (Chernykh, 1978, p. 72).

In the late 2nd to early 1st millennium B.C., during the transition from Bronze to Early Iron Age, and within the boundaries of the steppes and forest-steppe region, a specific cultural variation developed. This group, which co-existed with the Late Andronovo Culture, is known as the Karasuk Culture. According to archaeological data, the Karasuk populations dynamically interacted with their western neighbors. Parallel aspects of their material culture were great enough to warrant the hypothesis that a "Karasuk-Cimmerian cultural-historical community" existed during the 9th-8th cen-

turies B.C. and that the community was actually contiguous with the Timber-Grave and Andronovo cultures (Chlenova, 1972). Northern and central Kazakhstan, Dandybai-Begazy, and northern Tagisken sites dating to the 9th-8th centuries B.C. illustrate the interaction between the Late Andronovo and Karasuk populations (Kyzlasov, Margulan, 1950; Tolstov, 1962; Itina, 1990).

To underscore the continuity between the Late Bronze and Early Iron Age populations, in the period preceeding the Scythians' appearance in the steppes of the Caucasus and the Black Sea, objects which later were considered to be characteristic of their culture were found sporadically over a vast territory from the Carpathian Mountains to Mongolia. These items include bits with stirrup-shaped ends, three-holed psalia, and rhomboid and bullet-shaped arrowheads. Therefore, it can be asserted with certainty that the "Scythian-type" populations were genetically linked with their territorial predecessors.

In spite of a general cultural similarity, the Bronze Age Central Asian tribes did not form a single whole. Development along divergent lines continued during the formative period for the Saka communities and cultural continuity is observed only within each geographic region. The processes are illustrated by variations in the Saka material culture from Kazakhstan (Tolstov, Itina, 1966; Smirnov, Kuzmina, 1977), Ferghana (Gorbunova, 1962), Semirechiye (Bernshtam, 1950), the Tien Shan Mountains (Bernshtam, 1952), and the Pamir Mountains (Litvinsky, 1972). The paleoanthropological data are also indicative of a genetic continuity from the Bronze Age to the Saka populations (Trofimova, 1963; Khodzhaiov, 1983) and the data clearly substantiate the hypothesis concerning Saka genesis in Central Asia and Kazakhstan (Kuzmina, 1985).

Paleoecological conditions during the formative period of Saka populations. It was during the transition from the Late Bronze Age to the Early Iron Age that the Eurasian steppes went through the almost universal transition from the traditional complex economy consisting of cattle breeding, primitive agriculture, hunting, fishing, and gathering to one of predominantly simple cattle breeding. Of no small importance during this transition were climatic changes that affected the steppes in the late 2nd to early 1st millennium B.C. The sharp rise in aridity brought about a significant reduction in the availability of cultivatable lands in the estuaries, and furthermore, a decline in pasture land (Zdanovich and Shreiber, 1988). The aridity was probably the stimulus for Bronze Age steppe groups to push south in search of grazing land in the river deltas. The first wave dates to the mid-2nd millennium B.C. in the south Aral Sea region (Tolstov and Itina, 1960). Even farther south in Ferghana (Zadneprovsky, 1959, pp. 24-25), the Pamir Mountains (Litvinsky, 1977, p. 22), southern Sogdiana (Sagdullayev, 1987, p. 78), and southern Turkmenistan (Mandelshtam, 1967, p. 65), Andronovo, Timber-Grave, and the composite tribal units were in place by the 10th-8th centuries B.C. It has been established that the steppe tribes' southern migrations followed the Central Asian waterways, the Uzboi, Atrek, Tedzhen, Murgab, Amu Darya, and Syr Darya rivers (Itina, 1960, p. 7). As a result of the Bronze Age migrations to regions of southern Central Asia, variations of the northern steppe cultures developed (Kuzmina, 1964, p. 154). The territories of the lower reaches of the Amu Darya and Syr Darya rivers probably served as a spring board for subsequent migrations to the south (Chlenova, 1972, p. 134; Kuzmina, 1985, Fig. 8; 1986, Fig. 31).

The north to south movements were not synchronous and most probably were undulating in nature. Moreover, reverse movements should not be excluded because some elements of the material culture from the 10th-8th centuries B.C. necropoleis of Northern Tagisken are believed to be connected with the Near East (Tolstov, et al., 1963; Itina, 1981, p. 9). It is from this point of view that it

is possible to explain the presence of the pottery from southern cultures that has been found in the Late Bronze and Early Iron Age settlements and cemeteries in the lower reaches of the Amu Darya (Vainberg, 1979; Yablonsky, 1986) and Syr Darya rivers (Vishnevskaya, 1973).

Global processes led to cultural and genetic transformations within Central Asia. Late Bronze Age groups were obligated to move from the Amu Darya Delta to the lower Syr Darya Delta. Their place was then occupied by cattle breeding tribes possibly coming from the southern Siberian and the Volga-Uralian regions. By the middle of the 2nd millennium B.C. some areas of northern and southern Kazakhstan, the Semirechiye, and northeastern Kyrghyzistan had become essentially deserted. However, all of the regions became populated again during the Early Saka Period (Akishev, 1963, p. 131). The migrations are underscored by the assumption that the Tasmolian variation of the central Kazakhstan Saka had no local roots (Chlenova, 1983, p. 55). The same situation also existed in the pre-Sarykamysh Delta of the Amu Darya River. In contrast, the southern Ural steppes, having been comparatively densely populated during the Bronze Age became deserted by the end of that period. It is believed that populations only reappeared there in the 6th century B.C. as a result of migrations from Kazakhstan and Central Asia.

It is apparent that the cultural genesis of the Saka tribes was extremely complex. It was far from being linear and, furthermore, was marked by distinct regional variations conditioned by ecological factors. The ability to adapt to the ecology and the results of these adaptations are revealed by the activities and by the material culture of each unique tribal unit. The transition to the new economic system was quite rapid, although not synchronous, and took on different forms. Some tribal units, such as those from central Kazakhstan, became nomads. Others, illustrated by the populations of the lower Syr Darya River, after arriving in the new environment, found conditions so favorable that they were able to resume their traditional pursuits, and they even shifted eventually to plough agriculture.

K.A. Akishev (1972) carefully studied the factors that determined the development of the various forms of cattle breeding on the territory of Kazakhstan. Because of seasonal climatic conditions pastures became scarce and drinking water was depleted. At this time seasonal meridional migrations began. To the northeast, sites recently studied in the southern trans-Ural region are similar to those from central Kazakhstan (Botalov, 1987; Tairov, 1987). They reveal cyclical meridional migrations which, according to ethnographic data, followed the middle and lower reaches of the Syr Darya River, and they continued farther south to the lower reaches of the Sarysu and Chu rivers where winter pastures were available (Tairov, Botalov, 1988).

In southeast Kazakhstan, particularly in the Semirechiye, the situation was different. The water supply, and therefore the pastures, were permanent. Migration routes were relatively short, fluctuating between 100 to 200 km from the home territory, and, as a result, semi-sedentary traditions were the rule in this region. Similar climatic conditions in the deltas of the Amu Darya and the Syr Darya rivers also were conducive to a semi-sedentary lifestyle. During the 6th century B.C. in the lower Amu Darya River region, ecological conditions and the particular socio-political situation were responsible, in part, for one portion of the population's shift to agriculture based upon a complex irrigation system while the other portion of the population remained cattle breeders. It should be stressed again that the traditional Bronze Age roots were important to the development of these complex 1st millennium B.C. economies. However, some scholars feel that in Ferghana Valley, Bronze Age traditions were directly responsible for the development of a combined agriculture and cattle breeding economy further supplemented by hunting (Sorokin, 1961, p. 160).

Close scrutiny reveals, however, that even in a specific region the Saka economy was never homogenous. For example, on the basis of the material culture from the East Caspian Sea area and the southern Aral Sea areas, twelve different ecological niches have been determined. Within the borders of each of these niches the ecological and climatic conditions were so distinct that discrete economies evolved. Each niche represents an archaeologically specific material culture complex (Vainberg, 1988).

Features of local variations in the Saka culture and their system of interrelations based upon archaeological data. We have seen that some manifestations of the Saka material culture were quite comparable in the Central Asian steppes. Specifically, the design of horse harness articles, artifacts made in the "animal style" tradition, certain weapons, bronze cauldrons, and mirrors all reflect the Saka tradition. The indisputable parallels in these artifacts have fostered the opinion that the Saka world should be seen as a whole unit (Grayaznov, 1978; Martynov and Alekseyev, 1986). However, in considering this argument the fact should be taken into consideration that all of these artifacts indicate prestige. They were articles that could be used in everyday life and had a ritual or magical function also. Idiosyncratic prestige probably conditioned the specific mechanism for dispersing the distinctive articles among diverse groups.

Yet, in contrast, less spectacular attributes of the funerary rite indicate a clear cultural differentiation of Saka communities in disparate habitation areas. For example, in western Central Asia, as had been the tradition among the local Bronze Age populations, fire played an important role in the burial rites. In the southern and eastern regions, beginning in the Bronze Age and continuing into the Saka Period, tombs were lined with stone slabs which created a box. Other examples can be cited.

In the process of examining tangible material, archaeologists were able to analyze specific cultural manifestations, and compare the degree of interpopulation connections. Thus, the material culture from central Kazakhstan demonstrates the greatest parallels with that from the Altai Mountains and Tuva (see Chapter 17: "Tuva During the Scythian Period") (Grach, 1972, p. 29). The cultural processes of the Pamir Mountains were particularly shaped by populations from the Semirechiye (Litvinsky, 1967, p. 113; 1976, p. 53). Careful attention has been paid to the special relationship between the lower Syr Darya Saka and those of the Amu Darya River (Yablonsky, 1991), and to the connection between the lower Syr Darya Saka and the contemporary tribes of the Semirechiye (Akishev and Akishev, 1978).

Contacts with the classical civilizations of the ancient world were among the important factors contributing to specific manifestations of the Scythian and Saka material and spiritual culture. The Greek tradition in particular was prevalent in the West while the pre-Achaemenid groups and the Achaemenid Empire influenced the East. Populations living south of the Aral Sea had established connections with the Middle East from at least Neolithic times. Moreover, the Aral Sea populations played a prominent role in transmitting southern cultural components to the Asian-Kazakhstan steppes and to the forest-steppes of the Ural Mountains and southern Siberia.

One can also presume that the asymmetrical cultural and socio-political development of the Saka were partially a result of divergent influences from neighboring civilizations. For example, in the 6th century B.C. the Chorasmian state emerged within Saka territory along the lower Amu Darya River (Tolstov, 1948a; 1962). The classical Saka burial rite, with all its accessories, was a phenomenon of the Early Saka culture. However, in the Semirechiye this practice continued well into the 4th century B.C. (Akishev, 1978). In contrast, excavated material from the upper reaches of the Irtysh

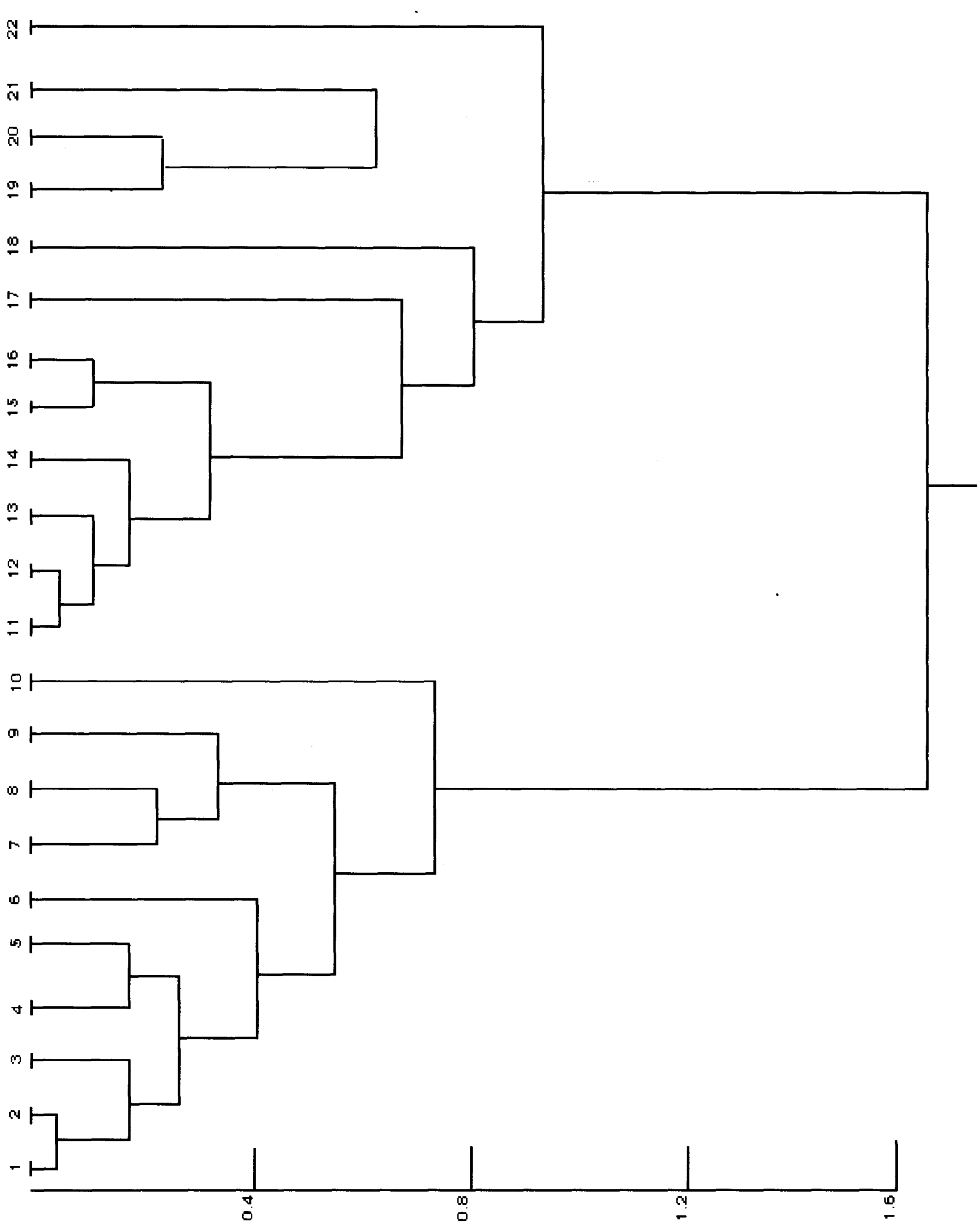
River illustrates the tenacity of the Bronze Age traditions (Akhindzhanov, et al., 1987, pp. 64-94). It could be said that unequal "starting positions" dictated the subsequent destiny of the various cultural groups.

These regional economic and cultural dissimilarities between Saka communities are apparent not only within Central Asia, in general, but also between the local groups. For example, a general resemblance between Saka necropoleis of the Amu Darya and the Syr Darya rivers is indisputable. Yet, specific comparative analyses reveal significant burial rite variations. The absence in one group of specific burial chambers may be explained by the smallness of the sampling. The dearth of particular accompanying artifacts could be explained by ancient tomb robberies. However, ritual food was placed in Amu Darya River area graves but is absent in those of the Syr Darya River area. Moreover, in contrast to the Amu Darya River region, in the Syr Darya River region no bodies were buried on their sides, and not a single case is recorded where the bones of the dead were moved to make room for a new burial in the same chamber. In the Amu Darya River region cemeteries, chambers with small ditches were never placed along the perimeter walls, chambers were never found with the ceiling burned, and pottery was never placed at the feet of the deceased as at Uigarak, only at the head. It is not only in the Aral Sea region, but also in other areas of the Saka world, that against the background of obvious similarities in material and spiritual culture, the specific structure indicates that each variation is unique.

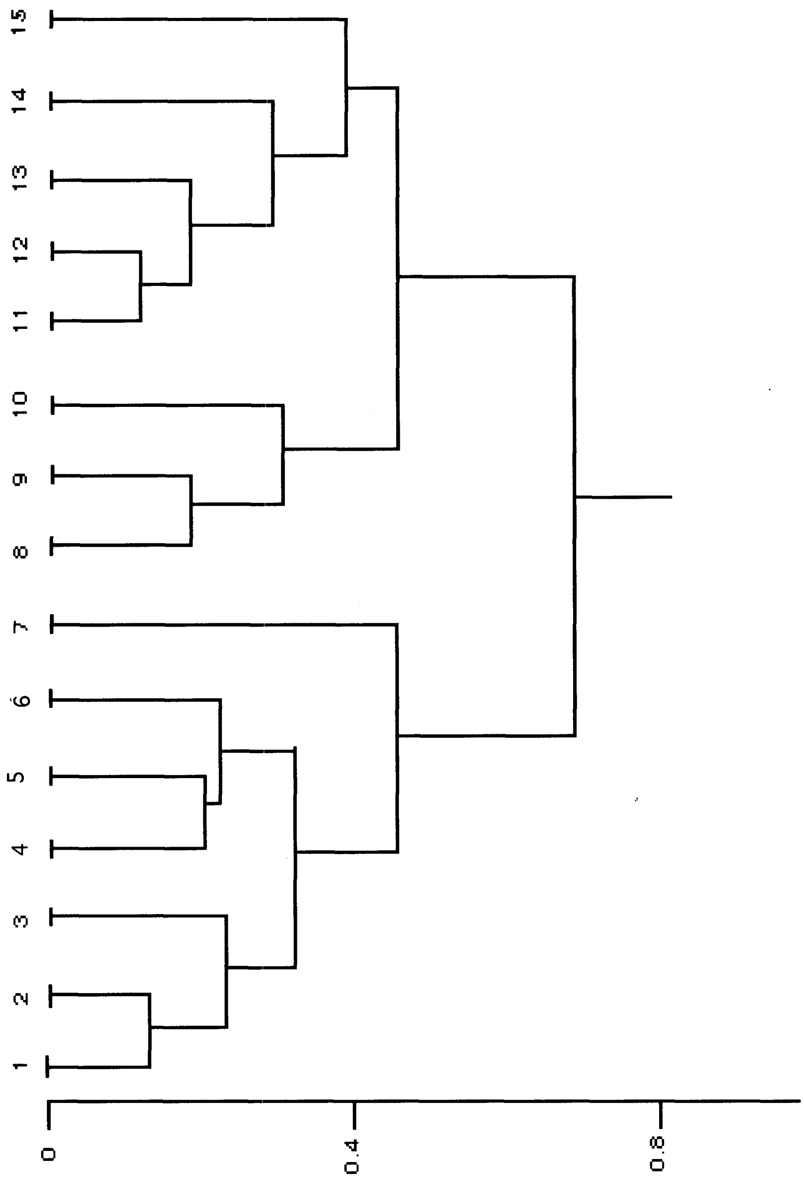
Physical type of the Saka. Paleoanthropological data also confirm the independent development of individual populations. The polycentricity of the genesis of individual Saka groups is illustrated by use of the dendograms (Dendograms 1-2) prepared on the basis of matrix coefficients of the generalized distance between summarized craniological traits (Penrose, 1954; Knussmann, 1967; Sokal, Sneath, 1963). Calculations were made using craniological data representing the Bronze Age and Saka Period populations from the Eurasian steppes and other neighboring regions. A value of 0.4 or less, as indicated by the lines on the dendogram, indicates that the morphological traits are minor. A values in excess of 0.8 is indicative of a sharp morphological differences between given series. This differentiation theoretically indicates a discrete genetic origin for the group.

In Dendogram 1 the data is taken from male craniometry. The series is divided into two large branches. The group on the right represents skulls with the most sharply manifested Europoid traits. It includes a series of Bronze Age material from the lower Volga River, morphologically similar skulls dating to the Early Iron Age from the southern Siberia Tagar Culture, from Ulan-Gom in Mongolia, mid-1st millennium B.C. Scythian material from kurgans in the Dnieper River region, and one of the craniological variations of the Amu Darya Saka. In general, all of the skulls are dolichocephalic, with relatively broad and low faces, low orbits, and sharply profiled facial features. During the Bronze Age this physical type was characteristic of the western steppes populations, occupying the areas north of the Caspian and Black seas. Conditionally, we will call this type "Western."

The series grouped in the left branch of the dendogram is characterized by a different physical type. These are mesobrachiocephalic skulls with a varying degree of face flatness, relatively high faces, high orbits, and a smooth macrorelief of the crania. These facial traits are well represented in Karasuk graves found in the Minusinsk Basin. The same craniological variations are basic to the populations who have left behind Saka necropoleis in Kazakhstan, in the foothills of the Altai Mountains, the southern Ural steppe region, and the lower Syr Darya River. This variation has also been



Dendogram 1. Male Craniometry



Dendogram 2. Female Craniometry

registered in some burial complexes on the left bank of the Amu Darya River. Because the peoples of this group are located geographically toward the eastern steppes, we conditionally call this type "Eastern."

The female series in Dendogram 2 repeats the same distributional pattern as the male series. This distribution is influenced by the greater flatness of their facial features as compared to those of the males, and by a greater tendency toward a brachiocranial type and greater facial broadness. That is, the patterns are affected by a complex of traits which testify to the presence of a Mongoloid admixture, indicating that they probably originated in Central Asia.

Each of the larger branches on the dendograms divide into a number of smaller ones. The steppe series are distinctive because of their more expressed Mongoloid traits. In contrast, the skulls from the Tien Shan and the Pamir mountains are characterized by more projecting nasal bones. The complex of craniological traits of the southern Central Asian Saka population gravitates toward the contemporary representatives of the Mediterranean race which has had no fundamental changes in 3,000 years. The eastern Pamir Saka are particularly conspicuous in this respect. In general, the distribution is the same as what is found among the contemporary populations of Tajikistan. A Mongoloid admixture is present among the plains Tajiks, but absent among the hill Tajiks and the peoples of the Pamir Mountains (Alekseyev and Gokhman, 1984, p. 54).

It is presumed that indigenous Bronze Age Central Asian populations directly contributed to the genesis of the Saka in each particular area. If this is true, the dolichocephalic maturized Europoids from the lower Amu Darya River necropoleis should be considered as representative of the "pre-Saka" anthropological layer that had been subjected in the 7th century B.C. to a cultural and partially biological assimilation by populations coming from the east.

Paleolinguistic reconstruction. I. Abayev contended (1949, p. 147) that the Scythians and Sarmatians who inhabited the territory north of the Black Sea spoke Iranian dialects, as did the Cimmerians who were predecessors of the south Russian steppe Scythians (1971, pp. 11-12). He believed that the Eastern European steppe populations spoke an Iranian dialect as early as the Bronze Age. Toward the end of this period, in the 2nd half of the 2nd millennium B.C., steppe populations pushed into Central Asia (Abayev, 1972, pp. 33-37; 1977, p. 4). By the early 1st millennium B.C. Iranian languages had become widespread in Central Asia.

According to I.M. Dyakonov (1956, p. 147), not only were the Scythians Iranian-speaking but also the entire Central Asian Early Iron Age population, the population that called itself "Saka." In addition, according to Dyakonov, the Bronze Age population inhabiting the eastern steppes was also Iranian-speaking (Dyakonov, 1960, p. 199).

E.A. Grantovsky (1975, pp. 81-95) assumed that the Iranian languages formed and were prevailing on the southeastern European steppes, and that the East Iranian languages originated in the area west of the southern Ural steppes and around the northern shores of the Aral Sea. In his opinion, a community of Massagetae and Saka people spoke Iranian no later than the 8th century B.C. Moreover, by the 2nd half of the 8th century B.C. several waves of steppe tribes had migrated southward and, as a result, the Iranian language had become predominant in western Iran and Media (Grantovsky, 1970, p. 5). To agree with this hypothesis, which has supporters and opponents, means that it is assumed that Indo-Iranian tribes had migrated to the southern areas as early as the Bronze Age while others had remained in the northern steppes and constituted the linguistic nucleus of the Central Asian Saka communities.

The archaeology of peoples without a written language can only hope to play a decisive, or even an appreciable role, in linguistic reconstructions. Nevertheless, in spite of the fact that archaeology is oblique to historical studies, archaeology offers materials which do deserve attention. We

will comment on a few archaeological facts which seem to support the opinion of the linguists suggesting that the Saka and Massagetae were indeed Iranian-speaking peoples.

Herodotus (I, 4) believed that the Massagetae were sun-worshippers and that they sacrificed their horses to this god. Among Iranian-speaking peoples, fire worship was connected with the sun cult. Saka kurgans usually contain either buried horses or parts of the animal. Connected with the horse cult are harness items which traditionally constitute one of the characteristic triad of the Saka tomb accoutrements. As part of the burial rites, the Saka, especially those of the western Asian steppes, used fire widely and in various forms. Illustrating the cultural ties and the traditional continuity, cultic fire rituals have been documented recently from among the materials from a cemetery of the Andronovo type in the Ural steppes (Gening, 1977, p. 70). The fire cult is distinct in the burial rites of northern Tagisken necropoleis on the lower Syr Darya River, and later, in Saka kurgans located in the Amu Darya Delta. In this latter location 50% of the tombs contain cremated bodies.

Commentators on the Rig Veda have noted that among the Indo-Iranians, cremation was always connected with the fire-sun cult, although both cremated and uncremated went to heaven (Mandelshtam, 1968, pp. 102-103). During the Rig Veda Period, the ancient Indians practiced both burial methods. Cremation, however, was prevalent (Kuzmina, 1986, p. 77). Using cinnebar and ocher in burial rituals are also considered as being related to the burial symbolism connected with fire and sun cults.

In conjunction with Indo-Iranian cosmogonic concepts, it is appropriate to recall that some Saka burials included the simulated corner poles. Among the Indo-Iranians, the four corner poles were associated with the tree of life (Bessonova, 1983, p. 47; Klein, 1987, p. 75) or symbolized the world's axes (Kuzmina, 1986, p. 50-53). According to A. Akishev (1984, p. 91) the plan of Bronze and Early Iron Age graves, located in Central Asia and some regions of Kazakhstan is reminiscent of the vara, Old Iranian architectural plan. The plan of the vara is associated with the earth and with a square or circle inscribed one within the other (Kuzmina, 1986, pp. 43-44. In the lower Amu Darya River region a number of constructions such as Koy-Kzilgan-Kala, Kalaly-gie-2, and Kalay-gyr-3 are circular in plan. In Turkmenistan and Kazakhstan some Saka tombs were constructed from concentric circles. The square within the circle is a traditional Saka kurgan plan.

The Rig Veda also mentions the practice of covering an offering place with straw bedding. Separating the layers of dirt in the kurgan mound with vegetation is considered to be one of the features of Indo-Iranian burial rites (Gening, 1977, pp. 71-72). This practice is most characteristic of the Aral Sea Saka. Western orientation of the body is also in keeping with Rig Veda texts (Kuzmina, 1986, p. 87). The custom of separating the body from the earth, by arranging a layer of vegetation, sand, or lime on the bottom of the grave is recorded in Bronze and Early Iron Age steppe kurgans. Sometimes the tombs contained a few preliminarily cleaned human bones (Gening, 1977, p. 165) or skeletons of dismembered bodies (Merpert, 1958, p. 86; Mandelshtam, 1968, pp. 39-40; Vainberg, 1979, p. 35). During the Bronze Age this was also the practice in the North Caucasus (Davudov, 1974). The themes introduced in "animal style" art are also conceived as being components of the Indo-Iranian world view (Akishev, 1984). On the basis of these and other traditions practiced by the Saka in their burial ceremonies as seen in their material and spiritual culture, it appears that the western Saka communities were Indo-Iranian (Freiman, 1941; Dyakonov, 1971).

Problems of ethnic history. Traditionally in archaeological studies archaeologists attempt to link material culture of specific Central Asian Saka with the names of nomadic tribes mentioned in ancient Persian and Greek written sources. The ancient Persians distinguished several

groups of Saka tribes. Mentioned in the Bisitun and Persepolis inscriptions are simply Saka, while later sources mention Saka-Haumavaraga, Saka-Tigrahauda, Saka-Tyaiy, Saka-Paradaraya, or overseas Saka, and Saka-Tyaiy para Sugdam or, Saka "beyond the Sogd." In the commentaries to *History* by Herodotus (Dovatur, et al., 1982, pp. 392-394), a data summary is given on the literary versions that attempt to identify ancient Persian and Greek names. The majority of students are inclined to relate the Saka of early sources with the Saka-Haumavaraga of the later texts.

It is generally accepted that the Saka-Haumavaraga of the Persian inscriptions are identified with the Amyrgian Scythians of Herodotus. The majority of researchers place the the Saka-Haumavaraga in the east in present-day Uzbekistan and Tajikistan, while others position them farther southwest in Merv-Margiana. The Saka "who are beyond the Sogd" (Sogdiana) are considered occasionally to have been the Saka-Haumavaraga. The Saka-Tigrahauda (literally translated "peaked caps") are generally placed in the areas of modern Uzbekistan and Turkmenistan, but sometimes they are localized in the Tien Shan region and the Semirechiye. Some scholars are inclined to identify the Saka-Tigrahauda of the ancient Persian inscriptions with the Massagetae of Herodotus and to place them east of the Caspian Sea. The "overseas" Saka are usually associated with the European Scythians, but occasionally they are also placed adjacent to the Aral Sea.

Ancient authors included ethnography of specific nomadic groups in their texts. Herodotus writes that the Massagetae are "said to be great people and a mighty, dwelling towards the east and the sunrise, beyond the Araxes" (I, 201). In describing the continuation of the eastern coast of the Caspian Sea as a boundless plain, Herodotus comments that the "greater part of this wide plain is the country of Massagetae" (I, 204). He further considers the Massagetae to be like the Scythians in their dress and manner of life and describes them as follows:

> They are both horsemen and footmen (having some of each kind), and spearman and bowmen; and it is their custom to carry battle-axes. They ever use gold and bronze; all their spear-points and arrow-heads and battle-axes are of bronze, and gold is the adornment of the headgear and belts and girdles. They treat their horses in like manner, arming their forehands with bronze breastplates and putting gold on reins, bits and cheekplates. But iron and silver they never use; for there is none at all in their country, but gold and bronze abounds. Now, for their customs: each man marries a wife, but the wives are common to all. The Greeks say this is a Scythian custom: it is not so, but custom of the Massagetae. There, when a man desires a woman, he hangs his quiver before her wagon, and has intercourse with her, none hindering. Though they set no certain terms to life, yet when a man is very old all his kin meet together and kill him, with beasts of the flock besides, then boil the flesh and feast on it. This is held to be the happiest death; when a man dies of a sickness they do not eat him, but bury him in the earth, and lament that he would not live to be killed. They never sow; their fare is their live-stock and the fish which they have in abundance from the Araxes. Their drink is milk. The sun is the only god whom they worship; to him they sacrifice horses; the reason of it is that he is the swiftest of the gods and therefore they give them the swiftest of mortal things. (I, 215-216)

Strabo (XI, VI, 2) also locates the tribes, which some Greek authors have called Saka and others have called the Massagetae, behind the Caspian Sea. According to his documentation (XI,

VIII, 2), the majority of the Scythians behind the Caspian Sea are called Dai. Tribes living farther east are called Massagetae and Saka, and all the rest are designated by the general term Scythians, but every tribe has its own name. As a whole they are all nomads.

> Stories of the following kind are told about the Massagetae: some of them live in the hills, others—on the plains, still others—in the swamps which form rivers, and still others—on the islands in the swamps.... They worship sun as the only god and sacrifice their horses to it. There is no silver in their country, iron is scanty but copper and gold are plentiful (XI, VIII, 6).... The inhabitants of the plain do not engage in agriculture (although they have the land) but live in the manner of nomads and Scythians, on mutton and fish. Some have found also a common way of life among all tribes of this kind...their burial rites, customs and all the everyday life are similar. (XI, VIII, 7)

Most frequently the Araxes of Herodotus is identified with the Oxus, the modern Amu Darya River. The Massagetae are usually located somewhere behind its Caspian Sea branch, the Uzboi, or between the Oxus River (the modern Amu Darya River) and the Jaxartes River (the modern Syr Darya River). Apparently Herodotus did not consider the Massagetae to be a Scythian tribe as he stated that it was under the pressure of the Massagetae that the Scythians left their homeland in Asia (IV, 11).

Judging from what Herodotus and Strabo write, it appears that like the appellation Saka, the term Massagetae was a collective name applied to various populations living in different habitats. This supposition is confirmed again through an analysis of the texts concerning the expedition of Alexander the Great through Central Asia. In the historical episodes, the participating nomads are called at various times "Scythian," "Massagetae," or "Dakhs." In the historic-archaeological reconstructions the Massagetae are associated with the Chirik-Rabat sites on the Lower Syr Darya River (Vainberg and Levina, 1990). However, the archaeological sources provide only circumstantial evidence in identifying any historical ethnonyms. Hence, any such constructions are to be considered hypothetical.

Main trends in the development of Saka populations in the 2nd half of the 1st millennium B.C. Any economic and cultural differentiation between Saka populations is rooted in the Bronze Age, and disparate enculturation is manifest in archaeological materials which reflect the formative period of Saka culture. Subsequently, under the influence of various internal and external components, the initial Bronze Age distinctions were responsible, in many respects, for the ethnic diversity of Central Asian populations.

In the lower reaches of the Amu Darya River on the cusp of the 7th-6th centuries B.C.the ancient Chorasmian state emerged. The development proceeded, not without influence from the Achaemenid Empire. At the same time, the economic system, dwelling construction, and ceramic technology indicate that the Chorasmian population sprang from local roots. In addition, it is highly probable that at the same time Saka communities also constituted a portion of the Chorasmian population. By the turn of the 6th-5th centuries B.C. the traditional and typical Saka funerary rites had disappeared. Not later than the 5th century B.C. these groups gradually adopted new funerary rites which included the practice of burying previously cleaned bones in ossuaries (Rapoport, 1971; Vainberg 1979). This rite appearing in the cattle breeding populations should probably be attributed to influences from the Chorasmian culture. How-

ever, funerary rites were not consistent as variations have been noted around the periphery of the oases and reflect the position of conservative cattle breeding groups. Populations whose physical appearance was similar to those of the early Saka Period still inhabited the left bank of the Amu Darya River. In the formative period of the Chorasmian state, significant numbers of Amu Darya Saka migrated from the delta to the north, northwest and to the southeast. Burial rites, similar to those practiced by the Aral Sea Saka, have been found south of the Ural Mountains and in the Semirechiye.

In the vicinity of the Syr Darya Delta, the characteristic traditions of Saka burial rites survived to the 6th-5th centuries B.C. and were apparent in the Chirik-Rabat cemeteries until the 2nd century B.C. By the middle of the 1st millennium B.C. cultural and economic association between the lower Amu Darya and the Syr Darya rivers had ceased and each population acquired unparalleled specificity.

In the Semirechiye, classical Saka traditions continued to develop during the 5th-3rd centuries B.C. and are well documented by material from the enormous kurgans at Issyk and Besshatyr (Akishev, 1974; Maksimova, 1978; K. Akishev, 1977; A. Akishev, 1984). Numerous necropoleis of that period have been excavated in the Chu and Talas river valleys. Other Saka kurgans of 2nd half of the 1st millennium B.C. are located in the central Tien Shan and Lake Issyk Kul valleys. In the alpine inner Tien Shan valleys the burial rites continued to conform to Bronze Age traditions (Bernshtam, 1952).

Between the 5th and 3rd centuries B.C., south of Ferghana Valley in the highland valleys of the Alai Mountain range, in addition to single person burials, collective burials have been discovered with up to six layers of skeletons. In the Ferghana Valley itself, graves of cattle breeders contain burial artifacts similar to those found in the graves of the agrarians of that region (Gorbunova, 1962).

Cattle breeders on the Zauzboi Plateau practiced atypical funerary rites. Single burials were in surface stone vaults. Ritual meat was not placed in the vault (Yusupov, 1986). The composite characteristic traits of the burial rites of northwestern Turkmenistan distinguished the local cemeteries from the widespread synchronous Central Asian cemeteries (Vainberg and Yusupov, 1990).

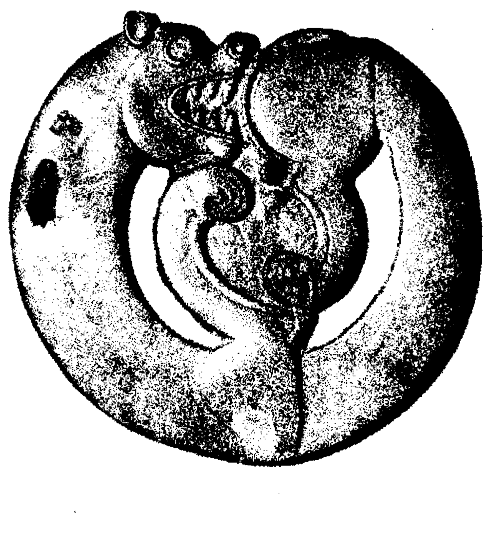
In summary, we can conclude that by the mid-1st millennium B.C. cultural differentiation apparent between Saka tribes during the formative stages was more pronounced. Ancient traditions, as reflected in material and spiritual culture, were more stable in the areas not directly affected by the agrarian civilizations of the Near East. In contrast, cattle-breeding populations of the regions involved in the military or political expansion of the Achaemenids, and later of the Greeks, developed into new and original communities. Their economic and cultural activities were conditioned, in many respects, by the specific interaction that took place between the cattle-breeders and the agriculturists who were settled in the oases of Central Asia.

It seems highly probable that in the 2nd half of the 1st millennium B.C. the varying intensity of cultural differentiation within the Saka world brought about the formation of new nomadic tribal communities. The names of some of these ethnoses are Pases, Sakaravales, Aparns, Asee's Derbices, and others. They are mentioned in the texts of ancient authors.

It is impossible here to provide an adequate description of the archaeological materials relatiang to the Central Asian Saka communities, or even to enumerate the problems that arise when attempting to interpret the material from a historical point of view. Moreover, this was not the aim that the author pursued. On the other hand if our readers have acquired at least some general notions about the unity and diversity of the earliest Saka cultures, the author may consider his task accomplished.

Part IV

Scythians in Siberia



CHAPTER 16

HISTORY OF STUDIES AND THE MAIN PROBLEMS IN THE ARCHAEOLOGY OF SOUTHERN SIBERIA DURING THE SCYTHIAN PERIOD

NIKOLAI A. BOKOVENKO

Because of their geographical location, the ancient societies of Southern Siberia occupied an important place among the Scythian-type cultures of the Eurasian steppes. In the west the area occupied by these tribes reaches the great Kazakh steppe, in the north it borders the vast expanse of the taiga. In the east the territory reaches to the shores of Lake Baikal, and in the south to the Central Asian steppes and deserts. Two great rivers, the Ob and the Yenisei, cross Southern Siberia meridionally. The combination of rich water resources, mountains, and steppes with versatile grass meadows attracted the ancient peoples to the area. With the appropriate conditions these peoples developed an optimum form of economy and culture.

The natural conditions of the steppe-like valleys of the Sayan and Altai mountains in central Southern Siberia were most favorable for stable cattle breeding. In contrast, agriculture required artificial irrigation and was much affected by periodic frosts during the growing season. Cattle pasturing was limited territorially as compared to, for example, the Kazakh steppe where people could migrate 800 to 1000 km with their cattle. Seasonal migrations in the Sayan and Altai mountain regions were mostly vertical in nature. In the summer they pastured their herds in the mountains and brought them down to pastures less affected by snow in the winter. This cattle breeding economy continued to function from the ancient times throughout many centuries. Cyclical seasonal migrations occurred in recent times among the Turkic-speaking peoples of Central Asia including the Altaians, the Khakass, and the Tuvinians.

Both during ancient times and continuing into the modern era the economy based upon seasonal migrations is very dependent upon specific physical geographic conditions found in the Sayan and Altai mountains. It also has been dependent upon changes which took place during the seasonal, annual, and epoch-making climatic cycles. These dependencies resulted in the development of a strict regimentation of pasture use by the cattle breeders. A required system of routes, such as a circular or vertical system, was necessitated by the surrounding natural conditions. Disruptions

in the optimum system of the economy, in the demographics, or in the balance maintained in cattle breeding caused extreme social tensions and increasingly further migrations.

The earliest archaeological discoveries in Southern Siberia relating to the Scythian Period are associated with the Russian incursion into the Siberian steppe territories in the early 18th century A.D. At that time numerous *artels* of *bugroshchviki* (kurgan robbers) ventured into the Siberian steppes with the specific intent to rob ancient graves and kurgans. An insignificant portion of the valuables from the kurgans found their way to N. Vitzen and N. Demidov, the founders of the metallurgical works in the Ural Mountains. In 1715 Demidov presented a group of the artifacts as a gift to Peter the Great on the occasion of the birth of his son. This beautiful collection of golden plaques made in the Scytho-Siberian animal style were later included in the "Siberian Collection of Peter the Great" in the Hermitage Museum. Understanding the true historical worth of the artifacts, Peter the Great issued a number of *ukazes* (decrees) to protect the archaeological sites of Russia and to preserve the artifacts.

Several expeditions headed by D.G. Messershmidt (1721), G.F. Miller (1733-1744), and P.S. Pallas (1770) were sent to explore Siberia. These researchers conducted the first scientific excavations, gathered artifact collections, and described the most outstanding sites of the different epochs. Later, the material they had collected was published.

The entire 19th century was characterized by extensive studies of local enthusiasts such as P.K. Frolov, N.M. Martyanov, D.A. Klementz, and others who supplemented the archaeological collections of local museums with new and interesting materials derived from excavations and accidental finds. During that period fine art in the form of rock drawings (petroglyphs) in areas adjacent to the Yenisei River and in the Altai Mountains was also discovered. A considerable number of petroglyphs date to the early nomads in the 1st millennium B.C. Regular excavations in the Altai Mountains, Minusinsk Basin, western Siberia, and Kazakhstan were conducted by the Turkologist V.P. Radlov, and later, by A.V. Adrianov. During this time the first attempts were made to prepare an archaeological map of the vast area.

The 1920s marked the beginning of a period when Siberia and the Sayan and Altai mountain archaeological sites were explored by such outstanding professional archaeologists as S.A. Teploukhov, M.P. Gryaznov, S.I. Rudenko, and S.V. Kiselyov. Teploukhov was the first to develop a genuinely scientific approach, not only in the analyses of archaeological materials, but also in the organization and implementation of field studies. Teploukhov's aim was to prepare a standard chronological section of archaeological sites. Having drawn on the data gathered from ethnography, anthropology, linguistics, toponymics, and other sciences Teploukhov conducted a complex study in a small area. From this he prepared a chronology of the Minusinsk Basin culture (1929). Using the Scythian Period as criterion, he dated the archaeological culture that later was named Tagar after excavations of typical kurgans on the Tagarskii Island. In M.P. Gryaznov's works, much attention has been paid to the issues of socio-economic changes during the transition from the Bronze to the Early Iron Age. Gryaznov noted that the archaeological and material culture of Southern Siberia dating to the late 2nd and 1st millennia B.C. convincingly documents the transition of the main population mass from sedentary to semi-nomadic or nomadic cattle breeding. (Gryaznov, 1939). According to Gryaznov, the period of Early Nomads was limited chronologically to the 1st millennium B.C. This time period corresponds to the Scythian Period in the North Black Sea area.

An important milestone in the studies of the archaeology and history of the peoples of Siberia was a monograph by S.V. Kiselyov (1951). This work discussed almost all of the questions

regarding the formation and cultural development of the ancient population. Kiselyov further summarized the archaeological materials accumulated to that time. According to Kiselyov, by the 7th century B.C., the Scythian cultures of Southern Siberia had been through a formative stage. Accordingly, S.V. Kiselyov suggested the following chronology:

First Stage: 7th to the early 5th centuries B.C.
Second Stage: 5th to 3rd centuries B.C.
Third Stage: 3rd to 1st centuries B.C.

During the 1950s and 1960s M.P. Gryaznov developed his own periodization of the Tagar Culture. In his view, the Tagar Culture was connected genetically with the local Karasuk Culture of the Bronze Age. He subdivided the Tagar Culture into four successive stages:

First Stage: Bainovo, 7th century B.C.
Second Stage: Podgornovo, 6th-5th centuries B.C.
Third Stage: Saragash, 4th-3rd centuries B.C.
Fourth Stage: Tes', 2nd-1st centuries B.C.

Gryaznov's four-staged chronology of the Scythian Period culture in the middle Yenisei River region is accepted today.

A viewpoint expressed by N.L. Chlenova (1967) concerned the course of historical development of the Minusinsk Basin cultures. Chlenova thought that the area could have harbored several cultures simultaneously and that these cultures were linked genetically to various Bronze Age cultures (1972).

Altaian research in the Soviet pre-revolutionary period involved, for the most part, geographical expeditions in the 18th-19th centuries A.D. The results of the expeditions made it possible to form preliminary proposals regarding the location of archaeological sites. Actual excavations were not numerous enough to develop a chronology of the ancient cultures. In the 1920s professional excavations began at a number of burial grounds in the vicinities of Bijsk city and in the Gorny Altai area, (S.I. Rudenko, M.P. Gryaznov, A.V. Adrianov, M.N. Komarova, and others). On the basis of the materials obtained, M.P. Gryaznov prepared the first basic classification of the ancient cultures (1930).

During the 1930s and 1940s, S.V. Kiselyov, L.A. Evtyukhova, G.P. Sosrovskii, M.P. Gryaznov, G.P. Sergeyev, and others conducted archaeological work in many areas of the Altai Mountains. The results of the excavations permitted the dissemination of much scientific documentation on the early nomadic kurgans which contained magnificent materials. Excavations were done on the rich Karakol Kurgan, on kurgans at Kurot, Kurai, and Tuekta, and the Bystryanskii Cemetery located on the Katun River in the pre-Altaian steppes.

The first of the Pazyryk kurgans was carefully excavated by M.P. Gryaznov in 1929 (Gryaznov, 1950). The most spectacular event in the 1940s was the excavation and subsequent studies headed by S.I. Rudenko of the Pazyryk Cemetery. This expedition continued until 1954. It provided radically new information concerning the Altaian tribes during the Scythian cultural period. Within great stone kurgans, preserved under the ice and frozen soil, the rich graves of tribal chief-

tains were excavated. The burials contained a great mass of splendid artifacts made from such organic materials as wood, leather, felt, and birch bark. These complexes have become world famous (Rice, 1957; Jettmar, 1964; Rudenko, 1970; Sulimirsky, 1970; Gryaznov, 1969).

Much attention was given also to the study of settlements belonging to the Scythian Period. For example, remains of a settlement and a foundry were unearthed in the vicinity of the village Bol'shaya Rechka on the Ob River (Gryaznov, 1956). Gryaznov established his concepts of the early Altaian nomadic chronology in three stages (Gryaznov, 1947):

First Stage: Maiemir, 7th-5th centuries B.C.

Second Stage: Pazyryk, 5th-3rd centuries B.C.

Third Stage: Shibinsk, 2nd century B.C. to 1st century A.D.

Later, Gryaznov further added a sequence to pre-date the Maiemir chronology (Gryaznov, 1979; 1983):

Initial Altaic Scythian Period: 9th century B.C.

The rationale for the added sequence was based upon comparative typological analyses of the principal artifact complexes found in the early Central Asian nomadic cultures and on the materials from the reliably dated sites in the northern Black Sea area. In addition, a well preserved larch timber frame construction found in the Sayan and Altai mountain region was used to radiocarbon date and also for comparative dendrochronological dating. On this basis the chronology for the Scythian Period complexes covering more than 600 years was obtained (Zamotorin, 1959; Zakharieva, 1976; Marsadolov, 1985).

The recent results of field studies conducted by several researchers at archaeological centers, including those at Novosibirsk, Barnaul, Kemerovo, and Gorno-Altaisk, have advanced the chronological problems of the final Scythian stage. The problems include the local cultural variations of cattle breeders. A hypothesis has been developed concerning ethnic heterogeneity of the Gorny Altai populations. Concerning the late Scythian Period, researchers have been able to determine a prevalence of Pazyryk-type kurgan cemeteries in the south and southeast Altai Mountain regions. In contrast, stone box graves are dominant in the central Altai Mountain region (Mogilnikov, 1983; Surazakov, 1983). The existence of the two types of cemeteries is explained by the fact that there were two ethnic groups in the Altai Mountains whose cultures are traceable to the 8th-7th centuries B.C. Two types of sites have been noted. These are the Ust-Kuyum type in the northern and central part of the Altai Mountains and the Koksinskii type found further south (Mogilnikov, 1986; Stepanova, 1986). It appears that throughout the Scythian Period the central Altai region was an area of contact for the two different ethnic groups.

In recent years many new sites dated to the Scythian Period have been excavated in different areas of the Altai Mountains (D.G. Savinov, V.D. Kubarev, V.A. Mogilnikov, V.I. Molodin, A.S. Surazakov, V.A. Umanskii, L.S. Marsadolov, T.N. Troitskaya, Yu. F. Kiryushin, A.B. Shamshin, N.V. Polos'mak, and others).

It appears that the chronology of ancient Altaian sites treated in this work reflects most objectively the actual chronological division of the materials as published in the series *Archeologiya SSSR* (Moshkova, 1992, p. 164). There is no doubt that new materials relating to the Early Iron Age

would allow for a more detailed chronology of the Altaian sites. At this time the following stages in the development of the early nomadic culture are recognized:

Early Stage: 8th-6th centuries B.C.

Middle Stage: 5th-3rd centuries B.C

Late Stage: 2nd century B.C. to 1st century A.D.

Studies of the historical sites of Tuva during the Scythian Period began only in the late 19th century A.D. A.V. Adrianov was the first to survey a number of districts in Tuva and collect much material from kurgans of different categories (Adrianov, 1886). In particular, he studied the kurgans dating to the 5th-3rd centuries B.C. located in northern Tuva. S.A. Teploukhov's works of the 1920s were a significant addition to the sources previously available (Teploukhov, 1929). Nevertheless, the amount of information was still sparse for the chronological reconstruction of the 1st millennium B.C. sites.

It was not before the studies of the 1940s and 1950s that L.R. Kyzlasov and S.I. Vainshtein were able to sub divide the Tuvinian Scythian Period of the 7th to the 3rd centuries B.C. into the two following stages (Kyzlasov, 1958; Vainshtein, 1958):

Early Stage: 7th-6th centuries B.C.

Late Stage: 5th-3rd centuries B.C.

Tuvinian studies continued on a regular basis during the 1960s as a result of several expeditions led by L.P. Potapov and A.D. Grach. The results of their excavations considerably expanded the known data on the early nomadic culture. A detailed analysis of the materials was obtained. Most importantly, it was possible to determine which sites preceded the Scythian Period. Grach developed an hypothesis that two successive cultures, not a single culture, had existed in Tuva. He identified these cultures as:

Aldybelskaya Culture: 7th-6th centuries B.C.

Saglynskaya Culture: 5th-3rd centuries B.C.

According to Grach, the changes in the material culture were connected to the arrival of an alien population which subsequently replaced the indigenous population (Grach, 1971). This hypothesis met with criticism from several researchers including Kyzlasov (1979) and Mandelshtam (1983). According to these researchers, the available archaeological materials did not allow for more than one cultural period to be distinguished. The differences of opinion fully reflect the debatable nature of the archaeological culture in Tuva. The criteria to distinguish a given culture are specific. This is true not only during different periods but also in different territories. Currently, the problem is too complex to positively determine if the Tuvinian population was mono-cultural or poly-cultural during the Scythian Period.

A qualitatively new stage in the study of the Scythian era began after the excavation of the immense "royal" Arzhan Kurgan in the Uyuk depression of Tuva (1971-1974). The materials obtained during the excavations and the subsequent course of studies make it possible to reformulate

hypotheses concerning the formation of the Scythian-type cultures in the entire Eurasia steppe zone (Gryaznov and Manai-Oll, 1975). Judging from the types of artifacts, the burial rites, and some elements of burial superstructure, the Arzhan Kurgan is chronologically older than any of the known complexes of the Early Scythian Period in Central Asia. Dendrochronological and radiocarbon dating indicate that Arzhan dates to the 8th century B.C. This indicates that the archaeological sites of Central Asia pre-date the 7th century B.C. Scythian sites found in the North Black Sea region. Further, the Arzhan archaeological materials seem to support Herodotus' information about the arrival of the Scythians from Asia (Herodotus, IV, 11). The Tuvinian mega-complex characterizes the early nomadic stage, or the Arzhanskii Period dating to the 8th-7th centuries B.C. Represented in the burials are all of the principal elements of Scythian burial artifacts. These include the typical Scythian forms of weapons, horse harnesses, and the developed animal style decorative arts. Using these artifacts as criteria M.P. Gryaznov deduced that the formative period for this assemblage possibly belongs to the 9th century B.C. (Gryaznov, 1983, p. 3). However, this early dating has not been accepted by all scholars and requires further substantiation. Presently it appears that the Tuvinian archaeological material of the Scythian Period can be divided objectively into three chronological stages:

First Stage: Arzhanskii, 8th-7th centuries B.C.
(according to P.M. Gryaznov and A.D. Grach)

or possibly, 9th-7th centuries B.C.
(according to Gryaznov, 1983, p. 3)

Early Stage: 7th-6th centuries B.C.
Late Stage: 5th-3rd centuries B.C.

At approximately the turn of the 3rd to the 2nd century B.C. Tuva entered the Hunnic-Sarmatian Period. The Hunnic-Sarmatian Period occurs at this time throughout the vast Eurasian steppes (Mandelshtam, 1990).

Southern Siberia embraces a considerable part of the Sayan and Altai mountain highland and adjacent steppes. The historical and cultural division of the area is dependent upon the physical geographical conditions. Today it is possible to recognize the culture of the central Asiatic region or that of Tuva. This culture spread over the eastern Sayan Mountain region, and is found in Tuva and in northern Mongolia. In the Altai Mountains the Scythian Period culture occupied essentially all of the mountainous region and the adjacent steppes. Surrounded on three sides by mountain ranges the culture of the Minusinsk-Khakass Basin stands out conspicuously. In view of the originality of each culture it is necessary to consider each region separately. The three regions are the eastern Sayan Mountains, the highlands of Tuva and its associated steppes, and the Minusinsk-Khakass Basin.

The Sayan Mountain territory is bordered on the west by the eastern Altai Mountains and the Kuznetsk-Salairsk region. It stretches eastward nearly to Lake Baikal. The western Sayan is a complex system of mountain ridges running generally in a northeasterly direction from the Abakan Ridge to the source of the Kazyr River. There are some minor depressions in the foothills. Except for the Usinskaya Valley which measures about 15 x 50 km in size, cattle-breeding is the economic basis because agriculture suffers severely from frosts during the growing season. Climatic conditions of the western Sayan Mountains are severe but somewhat less continental than the neighboring flatland.

The eastern Sayan Mountains are moderately continental. Most of this territory is occupied by highland taiga (forests). The ancient unforested plateaus with their smooth relief are also well preserved.

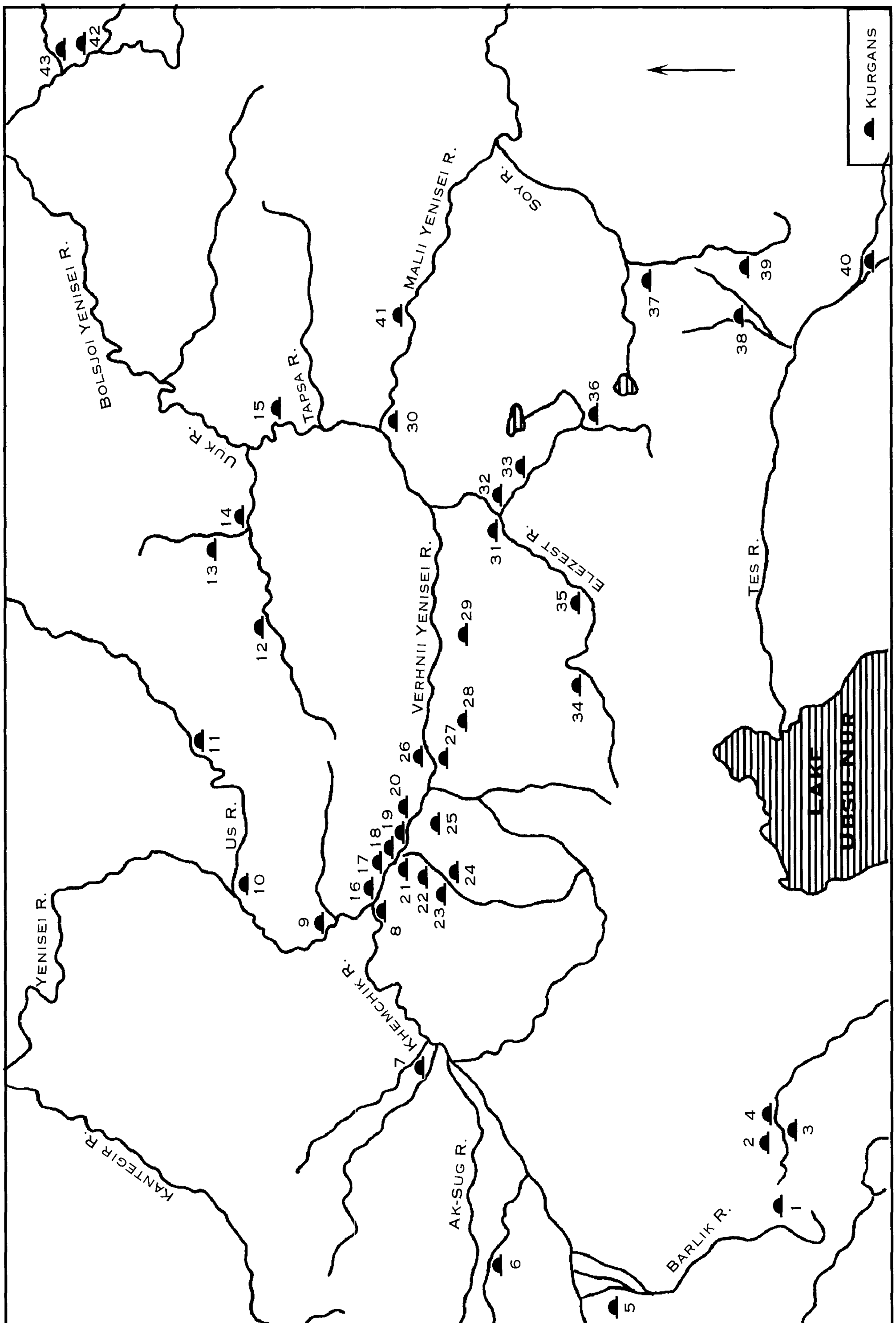
Tuva is a country with spacious depressions between moderately high mountain ridges. The southern slopes of the ridges run gently down to the semi-desert steppes of Mongolia. The climate of Tuva is sharply continental with a thin snow cover between 10 and 30 cm. The lack of heavy snow cover permits cattle to pasture throughout the winter.

Fauna of the Sayan and Altai mountain areas are extremely plentiful. In addition to the indigenous Siberian animals, other animals enter the region from Mongolia and northwestern China. The most common mountainous animals of Southern Siberia are fur-bearing and include various species of mountain goat, elk, Siberian stag, reindeer, bear, boar, and wolf. Occasionally, the snow leopard is encountered in the alpine areas.

Monuments

1 - Sagly-Bazhi
2 - Ulug-Khorum
3 - Lagan-Teli
4 - Duzherlig-Khovuzu
5 - Ozen-Ala-Belig
6 - Kyzylgan/Kazylgan
7 - Kokel'
8 - Khemchik-Bom
9 - Khadynnyg
10 - Idzhir
11 - Badanka
12 - Arzhan
13 - Turan
14 - Uyuk
15 - Begre
16 - Chinge
17 - Orta-Khem
18 - Kuilug-Khem
19 - Aldy-Bel'
20 - Temir-Sug
21 - Urbyun
22 - Bosh-Dag
23 - Aimyrlyg
24 - Kara-Dag
25 - Argalykty
26 - Khovuzhuk
27 - Bai-Dag
28 - Senek
29 - Sharash
30 - Kysyl
31 - Shanchyr
32 - Atamanovka
33 - Uspenskoe
34 - Elegest
35 - Khovu-Aksy
36 - Sosnovka
37 - Balgazin
38 - Samagaltai
39 - Shurmak
40 - Erzin
41 - Zubovka
42 - Toora-Khem
43 - Ii

Key to Map 16. Scythian Period Monuments in Tuva



Bokovenko

Map 16. Scythian Period Monuments in Tuva

CHAPTER 17

TUVA DURING THE SCYTHIAN PERIOD

NIKOLAI A. BOKOVENKO

The territory in which Tuvinian-type sites dating to the Scythian Period are found extends beyond the boundaries of modern Tuva. In the north the cultural boundary lies against the high spurs of the Mirskii range of the western Sayan Mountains. The area includes the Usinskaya depression located between the mountain ranges in the southern regions of the Krasnoyarsk territory. In the west the border is adjacent to the Pazyryk culture found in the Altai Mountains. It abuts the territory once occupied by the Slab Grave Culture of Trans-Baikalia. The southern Tuvinian cultural border is not well defined, yet it seems quite certain that this culture included northwestern Mongolia (Map 16).

The main archaeological sources which define the Tuvinian culture are the burial grounds located on elevations above the newer rivers. Cemeteries vary greatly because of the different types of kurgans. The kurgans generally were placed meridionally in chains or along riverbeds. Kurgan types are differentiated by the size and design of the surface structures and the burial chambers. Design changes which occurred during the Scythian Period indicate that burial rites transformed over time. Due to the important role that the horse played in the lifestyle of the early nomads as compared to that of the Bronze Age, it became characteristic to include one or several bridled riding horses or the harnesses in the burial. The appearance of this cultic feature indicates the formation of a social strata of mounted warriors within society.

The burial structure of the initial Arzhanskii stage was a cist with a dome-shaped structure which covered the dead. This structure was surrounded by a circular stone fence. The deceased was placed on the ancient ground surface (Figs. 1-2). Burials with four-cornered fences arranged around the grave pits appeared at a later date.

The Arzhan Kurgan located near the geographical center of Asia in the Uyukskaya highland depression of Tuva is particularly outstanding. M.P. Gryaznov has estimated that it would have taken not less than 1500 men to build the kurgan in 7 or 8 days. The kurgan was a huge cylindrical stone structure measuring 120 m in diameter and up to 4 m in height. Built on the ancient soil surface, it had a reinforced stone wall which formed a foundation. An intricate wooden structure composed of 70 large burial chambers, each defined by large larch logs, was hidden beneath the thick stone embankment. The timber graves ran radially from the central double burial (Fig. 1). The size of the burials varied from 15 to 150 m^2 and reached a height of 2.5 to 3.0 m. On all sides the graves were lined with wooden planks. In the center of the burial chambers two smaller cells were placed with the larger central

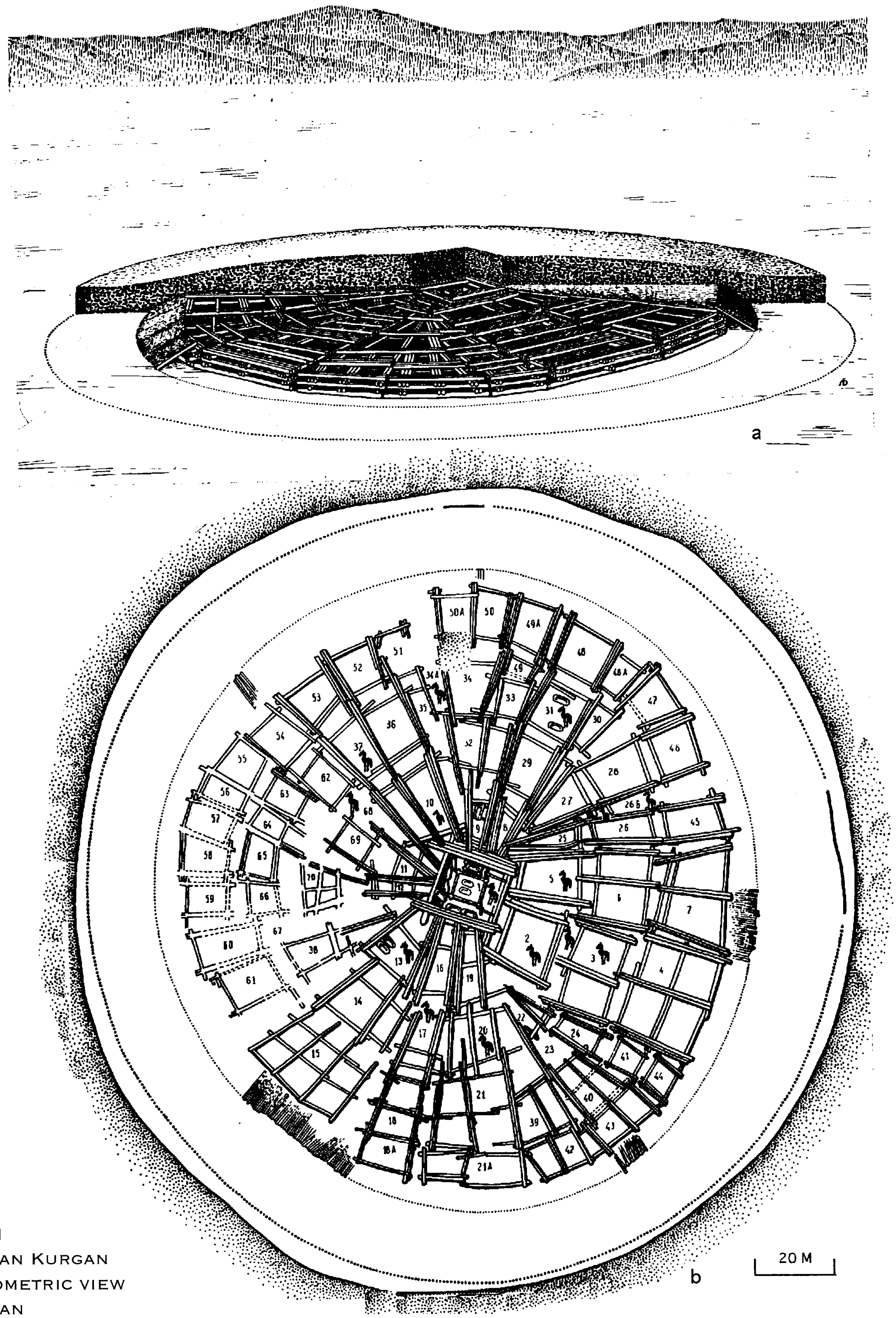


FIG. 1
ARZHAN KURGAN
A. ISOMETRIC VIEW
B. PLAN

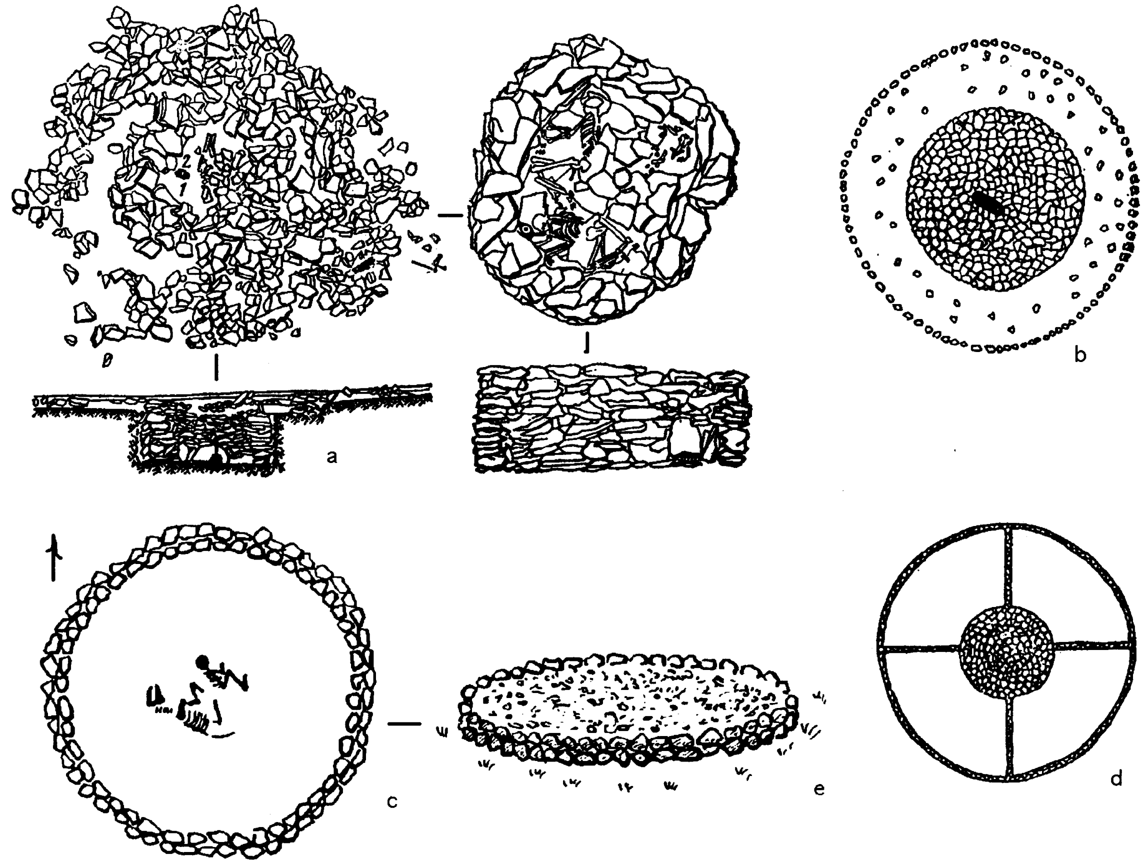


FIG. 2
KURGANS
A. ARGLYKTY
B-C. AIMYRLYG
D. SHURMAK-TEI

shell. These held the log coffins in which "tsar" and "tsarina" had been buried. They were dressed in rich fur clothing and adorned with precious decorations. Attendants and six riding horses with harnesses accompanied them (Figs. 3-4). In the other chambers seven servants of the same elderly age as the "tsar" had been buried in rich clothing with decorations and armaments.

Nearly 160 harnessed riding horses had been buried with the noblemen as well as in separate cells (Figs. 1b, 4b). The horses had bronze bridle bits which were adorned with gold and bronze plaques and pendants carved from boar tusks. No other kurgan even among the later dated "royal" kurgans of the Scythian world has as yet contained so many attendants who accompanied their ruler into the "country of the dead."

Unfortunately, the Arzhan Kurgan had been partially robbed in antiquity and many of the splendid and valuable items from the "tsar" grave have been lost. The surviving remains of clothing, carpets, decorations of silver and gold, and beautifully modelled animal style artifacts cast in bronze affirm that a very rich ruler, the chief of a tribal union, had been buried there (Gryaznov, 1980, p. 50).

At Arzhan the dead were buried contracted and on the left side although an occasional skeleton was found on its right side. The heads were orientated west-northwest. The bodies were arranged in the graves in one of two manners. They were placed either concentrically around the

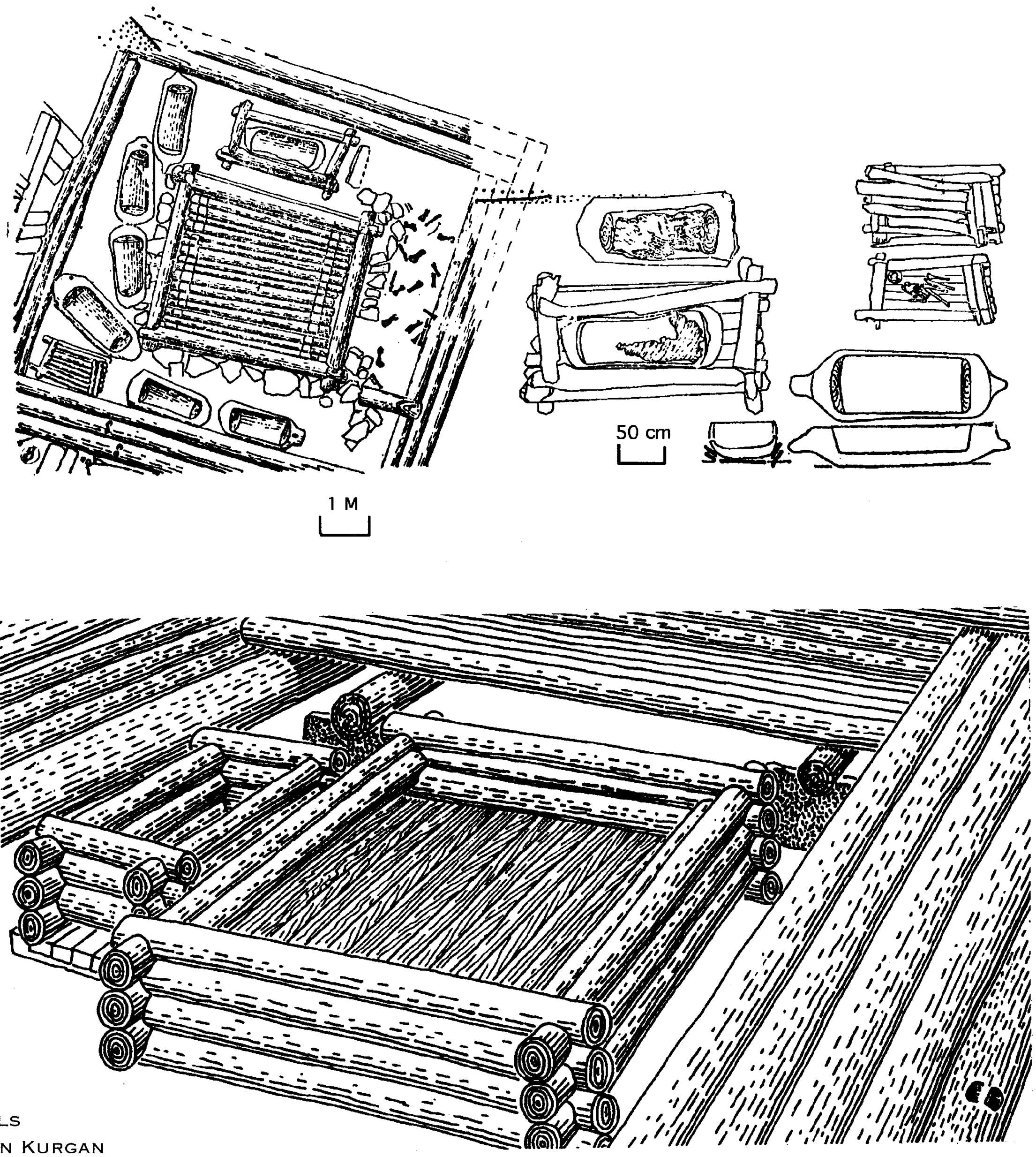


FIG. 3
BURIALS
ARZHAN KURGAN

central burial (the first person buried) or they were arranged parallel to each other.

Accompanying artifacts included various items made from bronze and iron. No pottery was excavated. Chamber 1 of the Arzhan Kurgan yielded some fine fragments of a few rather big bronze cauldrons. The original shape of the cauldrons remains uncertain. However, cauldrons as a category of vessels was widespread in the Asiatic steppes during the Scythian Period (Bokovenko, 1981).

Arms are represented by bronze daggers, axes, and arrowheads. All of the daggers are two-bladed with narrow wing-shaped guards. The pommels were either mushroom-shaped, grooved,

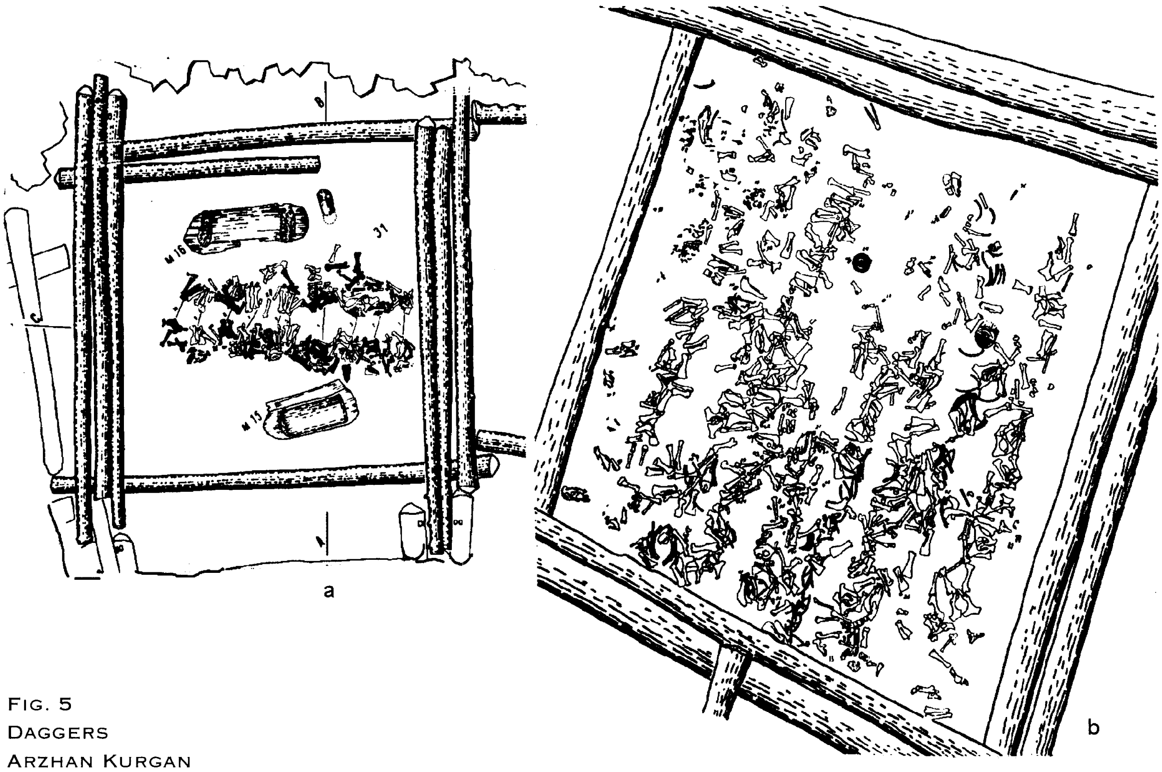
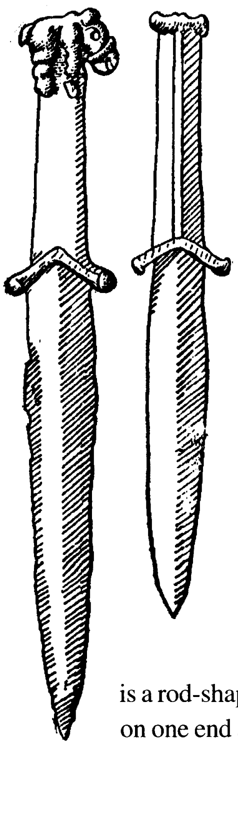


Fig. 4
Burials
Arzhan Kurgan

Fig. 5
Daggers
Arzhan Kurgan



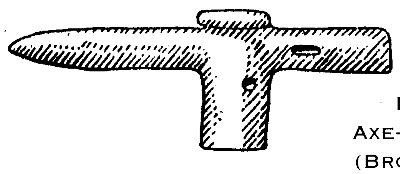


Fig. 6
Axe-head
(Bronze)

or shaped in the form of a boar (Fig. 5). The axes are massive and hollowed with either a sharp or dull edge (Fig. 6). In the Sayan and Altai mountain region these axes appeared only in the Scythian era. Arrowheads vary in form. The bronze arrowheads are generally hollow, bullet-shaped, double-bladed, rhomboid, or leaf-shaped. Some of the leaf-shaped arrowheads have a sharp tenon. Bone arrowheads are sub-triangular in shape and trilobed or tetrahedral in cross section (Fig. 7).

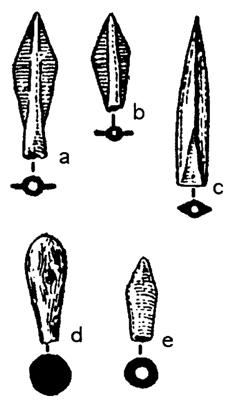


Fig. 7
Arrowheads
a-c. (Bronze)
d, e. (Bone)

Examples of horse harnesses from Arzhan are extremely numerous. Some of the burial complexes contained twelve variations of bronze bridle cheekpieces. The terminals are round, elliptical, or stirrup-shaped. There are six variations of the placements of the holes on the cheekpieces. One type has three holes and was made from leather and wood or from bone. Another type is a rod-shaped cheekpiece with up to three holes. The finials are mushroom-shaped on one end and conical on the other. Other cheekpieces include various round- and



Fig. 8
Horse Harness equipment
Arzhan Kurgan

octagonal-shaped plaques or pendant-types in the shape of boar tusks (Fig. 8). In all, 24 unique sets of horse bridles come from different time periods (Bokovenko, 1986). Some of the complexes have been reconstructed with all of

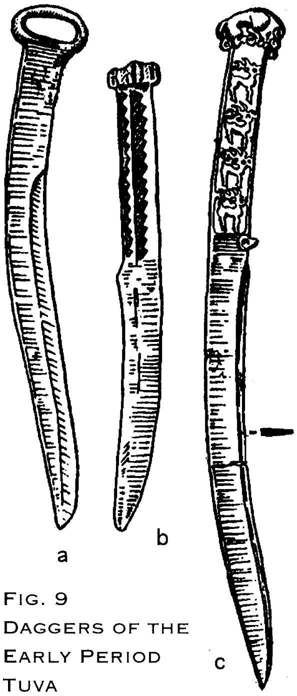


FIG. 9
DAGGERS OF THE
EARLY PERIOD
TUVA

the details (Fig. 8 h, i, v). Breast decorations for horses included primitive horn pieces and a splendid bronze plaque.

Among the tools of the initial period are slightly curved lamella knives with ring-shaped or zoomorphic pommels (Fig. 9). In some cases the knife handles are decorated with depictions of animals including reindeer, beasts of prey, and birds. Zigzag ornamentation also was used.

Jewelry included torques, earrings, and beads. The torque was made from a piece of narrow sheet gold and is quite simple. Gold earrings in the form of a shield decorated with turquoise insets and a bead have also been found (Fig. 10). The belts were probably decorated with gold plaques. In the central grave some turquoise pieces which were probably insets from figured gold belt buckles were discovered. In the later period this type was well represented in the art of the Altai Mountain region (Fig. 11). Beads of the Arzhan Period were made from turquoise.

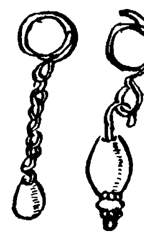


FIG. 10
EARRINGS
(GOLD WITH
TURQUOISE
INSETS)

The deceased were buried in log coffins which were placed in the timber cells. Almost no clothing has survived but it can be stated with certainty that the deceased wore fur coats or jackets made of polar fox. The clothing under the fur was woolen, an had been made using either a simple or serge weave. Some fragments of horse blankets or carpets with polychromatic rhomboid or stepped pyramid designs have been found (Grjanow, 1984).

Included in the same kurgan with the Scythian-type weapons and numerous pieces of horse harness were many articles made in the Scytho-Siberian style. The most important of these is the horse breast plaque mentioned above which was cast in bas relief in the form of a coiled feline beast of prey. The image is very expressive. It looks as if the animal were ready to burst from its confining circle at any moment. Stylistically, it is rounded with softened forms. Although the feline's ears, eyes, and legs are schematicized (Fig. 8k), in general, the depiction is realistic and is characteristic of the early stage of animal style art development. A fragment of a similar but more archaic-styled plaque was a chance find in Mongolia. Such depictions from the 7th century B.C. kurgans at Maiemir in the Altai Mountains and from Chilikta and Uigarak in southern Kazakhstan are more laconic. Equally interesting are five bronze finials in the form of mountain goats from Arzhan (Fig. 12). Some heaviness in the interpretation of the separate body parts points to its archaic character. The realistically depicted monumental posture of the animals testifies to the ancient masters' keenness of observation and of their skill in rendering the character of the animal in metal. Examples of very fine interpretations of the animal style art are found in Tagar finials (Fig. 13) dating to the 7th-6th centuries B.C. In the North Black Sea area, at a time period corresponding to the Arzhan Period in Tuva, no monuments of the Scytho-Siberian animal style art are known. They come into use in the North Black Sea region only somewhat later.



FIG. 11
BELT PLAQUE
COILED FELINE
(GOLD WITH INSETS)

An important aspect of nomad creativity was the monumental art represented by a series of *olenniye kamni* (deer stones). These stone sculptures were

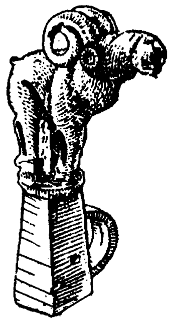


FIG. 12
FINIAL
MOUNTAIN GOAT
ARZHAN KURGAN



FIG. 13
FINIAL
MOUNTAIN
GOAT
TAGAR
CULTURE

widespread in Central Asia probably from the turn or at the very beginning of the 1st millennium B.C. (Volkov, 1981, p. 117). The term *olenniye kamni* is used to denote tall stone stelae with depictions of deer or less frequently of other animals such as boars, horses, or feline beasts of prey carved in low relief on the stone surface. The *olenniye kamni* are particularly numerous in Mongolia where more than 500 stelae have been recorded in both burial complexes and at the site of funerary banquets. Fewer are known in Transbaikalia, Tuva, the Altai Mountains, and in Kazakhstan, and only solitary ones have been discovered in the North Black Sea area. *Olenniye kamni* are anthropomorphic although bas relief faces are found on a very few of the stelae. Earrings, necklaces, and belts with additional attributes are represented on many of the stones (Fig. 14). Archaeological research at Arzhan yielded a fragment of an *olenniye kamni* which is round in section. The images which are carved on the stelae include a belt with a whetstone, a dagger with a bow suspended, and a boar below a row of deer (Fig. 14d). According to M.P. Gryaznov the manner in which the animals are depicted, that is, on the tips of their toes, is particularly characteristic of the early stage of the Scytho-Siberian art style (Gryaznov, 1984).

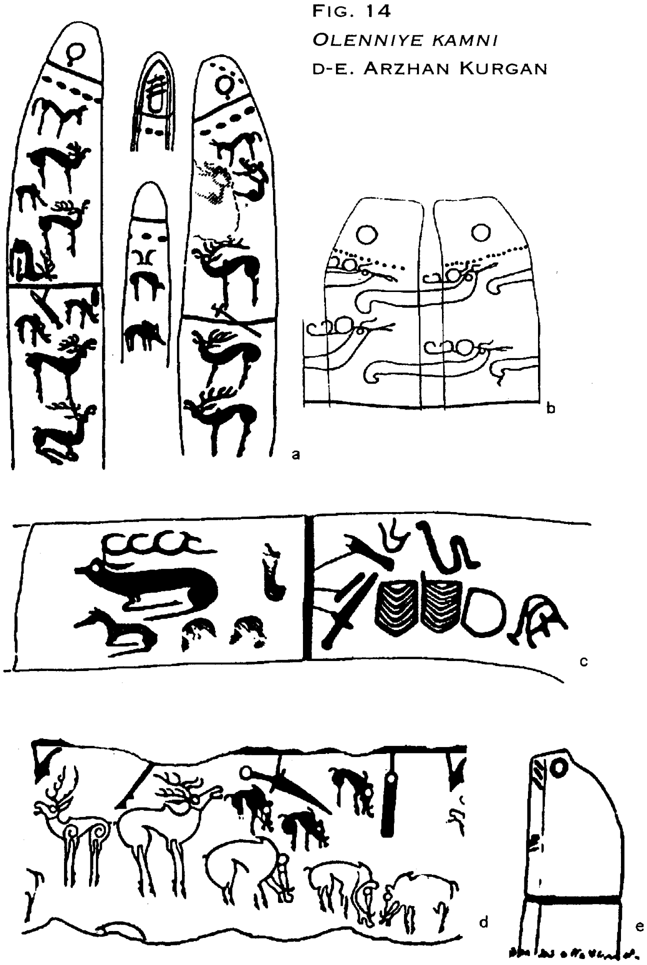


FIG. 14
OLENNIYE KAMNI
D-E. ARZHAN KURGAN

The Arzhan materials allow us to construct the following mythologema of that period. The deceased supreme ruler—a military leader-priest—was placed at the center (the sun or the universe) of the kurgan to travel to the otherworld. He was buried with numerous purifying, expiatory, and accompanying sacrifices offered by the different neighboring tribes. The people who were most probably his associates accompanied him as did the horses that he needed for transportation to the otherworld. All of these accoutrements were required for him to maintain the established order and the harmony of the universe, and to achieve rebirth later.

Arzhan is an ethnoculturally important site because it is possible to develop a typological analysis of the main categories of the artifacts. These include horse harnesses, weapons, and works of art. It is possible to define the areas of origin of the gifts offered to the powerful leader. Offerings found in the northern timber graves came from the eastern areas of Kazakhstan, the Altai Mountains, and the Minusinsk Basin. In the southern burials offerings came from Tuva and Mongolia. The burial tradition in the kurgan involving a great number of horses is reflected indirectly in the written sources. The Massagetae worshipped the sun by sacrificing their horses as "he [the sun] is the swiftest of the gods and therefore they give him the swiftest of mortal things" (Herodotus, I, 216). The area inhabited by the Saka and Massagetae could have stretched east to include Tuva and Mongolia. A hypothesis exists which names Kazakhstan as the origin of those buried in the Arzhan Kurgan (Kyzlasov, 1977). The final solution of this problem is yet to come.

Few ordinary burial sites belonging to the early stage are known. The chronological identification is difficult because of the scarcity of the accompanying artifacts (sites of Bai-dag, Sharash, Erzin Badanka IV). Ten years after the Arzhan excavations the author was able to excavate the Badanka IV burial site located in the Usinskaya Hollow. It contained the grave of a warrior. The skeleton lay on the ancient ground level with a harnessed riding horse (Bokovenko, 1987, pp. 46-47). A small round stone fence that was greatly weathered and partly destroyed by ploughing was also excavated. It is possible that a few hundred kurgans of the Arzhan type whose embankments did not stand out conspicuously may have been lost. These kurgans would have contained the deceased who were buried on the ancient ground level.

During the next period, the early stage of the Uyuk Culture, the main cultural components including the burial rite continued to develop. No immense kurgans of the Arzhan type belonging to this period have been discovered yet. The materials are mainly illustrative of the status of the rank and file members of the society (Mandelshtam, 1992, p. 183).

Round stone fences surrounding stone, or stone and earth embankments, continued to be built (Aldy-Bel', Ortaa-Khem, and Khemchik-Bom sites). They were often raised next to each other to form octagonal shapes. A new type of burial structure, either rectangular or square, appeared (Figs. 2, 15). The dead were buried in grave pits in either a stone or a wooden box with a lid (Fig. 15). The floor of the stone box was frequently covered with stone slabs or pebbles. Some of the deceased were buried in wooden log coffins. These are generally individual burials although some were double. Systematically, the adults were buried in the central grave and the children on the periphery of a kurgan. Orientation of the dead was usually to the west with some deviations to either the north or south. As in the Arzhan Period the dead were buried on their sides with their arms and legs contracted. In central and northeastern Tuva some collective graves with northern and western orientation of the dead have been discovered (Mandelshtam, 1980, p. 183). Horsemen were buried without their horses. In some cases, a horse hide was placed over the grave. The bridle was placed either between the grave and the fence or within the kurgan fence.

Accompanying artifacts consisted mainly of clothing, weapons, and horse harness items. Kurgan embankments have yielded some ceramic sherds which were probably the remains of the funeral feast.

Bridles of that time consisted of bronze stirrup-shaped terminals on the bits and v-shaped cheekpieces (Fig. 8m). Bronze girth buckles were ellipsoid or spiral-shaped (Fig. 8 c, j). Various crosspieces used to contain belts and semi-spherical bridle belt plaques were included. During the early stage two-holed rod-shaped mouth bits appeared (Fig. 8h). This indicated that a new way had

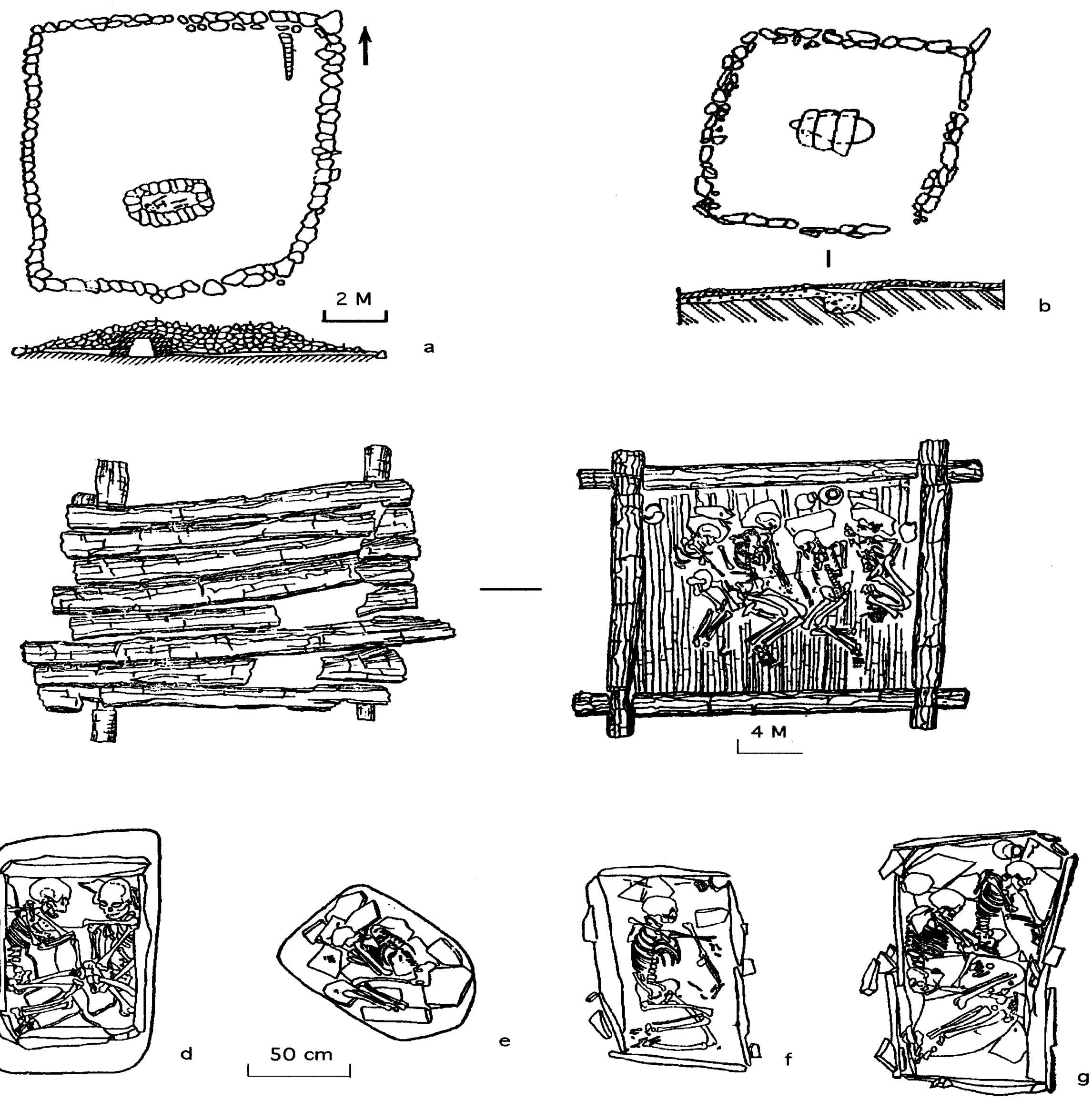


FIG. 15
BURIALS
A-D, F-G. AMYRLYG
E. CHANCE FIND NEAR THE SUSH RIVER

been invented to fasten the cheekpieces to the mouth bit. The cheekpieces were now inserted into the holes and were not secured by looping as had been the custom during the Arzhan Period (Fig. 8i). This method of attaching the bit and cheekpieces allowed for more reliable control of the horse and was the method used until the Early Middle Ages. The rod-shaped bits were replaced by simple rings and the rod-shaped curb-bits were used for the special purpose of breaking a horse to ride.

Armament and weapons are represented by arrowheads, daggers, and fighting axes whose forms are a continuation of the Arzhan Period weapons and armament. Daggers were made with a

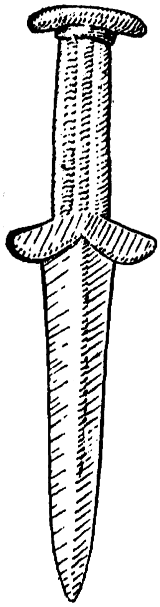


FIG. 16
DAGGER
(BRONZE)
UYUK CULTURE

narrow wing or bud-shaped guard and cylindrical pommel (Fig. 16). The daggers have frequently been found in a leather scabbard constructed around a wooden base. All of the fighting axes have a deep round bore in section in the butt. In some cases, the butt is decorated with a figure of a goat (Fig. 17). Some rhomboid-shaped, two-bladed spearheads cast in bronze have been found as well as variations such as the three-edged spearhead. Massive two- and three-feathered, three- and four-edged spearheads with long tangs are prevalent (Fig. 18). Both bronze and bone arrowheads have been found in a variety of forms. Bone arrowheads vary from bullet-shaped to hollow-shafted trilobed, and stemmed three- or four-edged types (Fig. 19).

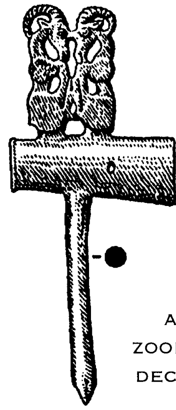


FIG. 17
AXE-HEAD
ZOOMORPHIC
DECORATION

Knives were suspended from belts. They are lamellar, have one blade and a ring- or loop-shaped pommel. Knives are often found with awls and a whetstone and less frequently with a dagger (Fig. 20). Occasionally, a leather sheath decorated with a geometrical design is discovered. Awls are simple with four edges. In some cases the awls have a small head or a ring on the end (Fig. 21). Whetstones are rectangular or trapezoid-shaped and may have a small hole for suspension on one end (Fig. 22). Only fragments of leather belts have survived. These fragments illustrate that belts were decorated with various clips, rivets, and bronze plaques which suspended animal style depictions.

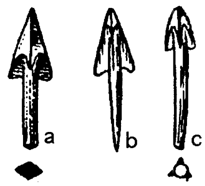


FIG. 18
TANGED
ARROWHEADS
(BRONZE)

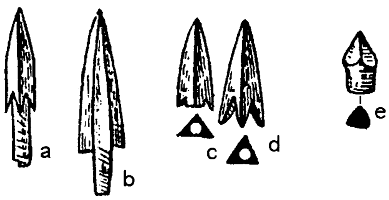


FIG. 19
ARROWHEADS
A-D. (BRONZE)
E. (BONE)

Toilet articles are represented by bronze mirrors and bone combs. The mirrors are round with a narrow rim around the edge and a loop or knob-shaped handle used for suspension (Fig. 23). Combs are elongated and the finials were decorated with a flame or zigzag design. Occasionally, the ornamentation included finely carved and involved compositions of animals integrated into each other (Fig. 24). Jewelry and decorative objects are diverse. They include suspended ornamentation, bronze plaques in the shape of various animals, and wire torques. Gold ring-shaped earrings were embellished with bone, paste, glass, and semi-precious stones carved from chrysolite and turquoise.

A majority of the *olenniye kamni* probably belong to this period. Some are covered with numerous depictions of animals. Deer with legs contracted are predominate and are often

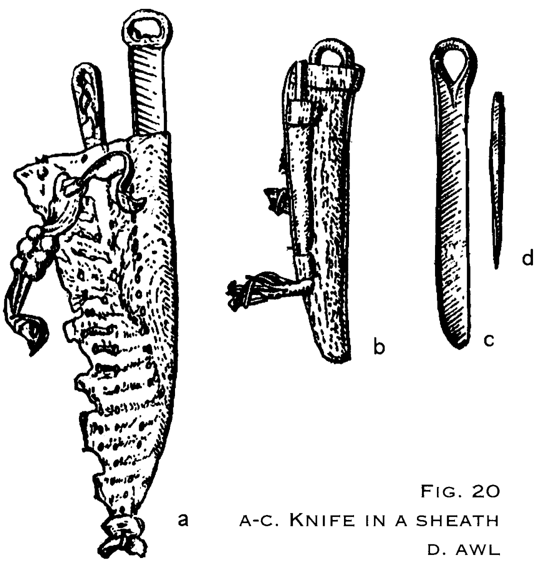


FIG. 20
A-C. KNIFE IN A SHEATH
D. AWL

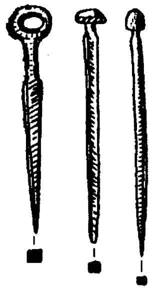


FIG. 21
AWLS
UYUK
CULTURE

very stylized (Fig. 14). Others are not complex and display only ring-shaped earrings, a necklace, a belt, and a number of lines incised on the front of the stone. The author excavated one such *olenniye kamni* from the stone embankment of a kurgan. Substitutes for the *olenniye kamni* have also been found at Badanka IV. These are represented by elongated stelae placed in the ground on the eastern side of the kurgan fences.

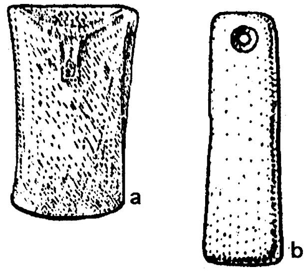


FIG. 22
A. CELT (BONZE)
B. WHETSTONE
(STONE)
UYUK CULTURE

The late stage of the Uyuk Culture (Sagly Culture according to A.D. Grach) is characterized by the continued development of burial structures and traditions. In general, the data points to a definite growth in the Tuvinian population during this period (Mandelshtam, 1992, p. 185). The earthen kurgans have very deep graves measuring from 3 to 5 m in depth. They are surrounded by rectangular fences. The quantity of timber graves increased greatly and methods of their construction improved significantly. Children were buried either in log coffins or in small stone boxes. The general trend was toward an increase in the size of the timber burial chamber and stone box. Sometimes the chamber contained up to 15 bodies. Square-shaped timber graves are predominant.

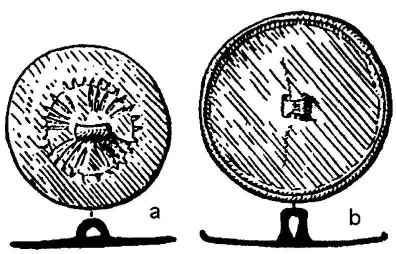


FIG. 23
MIRRORS
(BRONZE)
AIMYRLYG GROUP
UYUK CULTURE

Inside the chambers the dead were usually placed in parallel rows on their left or right side with their legs contracted. Frequently they had opposing orientation. Children's bodies were usually placed in the adult burial.

An important distinguishing indication of the late stage is the increased number of iron artifacts. This attests to the mastering of this new material. The process was probably a gradual one. The form of the iron artifacts frequently mimics the bronze ones in minute details. Arrowheads continue to be cast in bronze and carved from bone. Another innovation of the time is the appearance in the graves of clay vessels in various shapes. Vessels were also made of wood and birch bark.

The forms of armament and weapons were not significantly affected by changes. Butterfly-shaped guards continue to be used (Fig. 25). The majority of the bronze daggers differ in the form of their pommels which now may be bar-, segment-, or volute-shaped, or have zoomorphic decorations. An interesting pommel that was

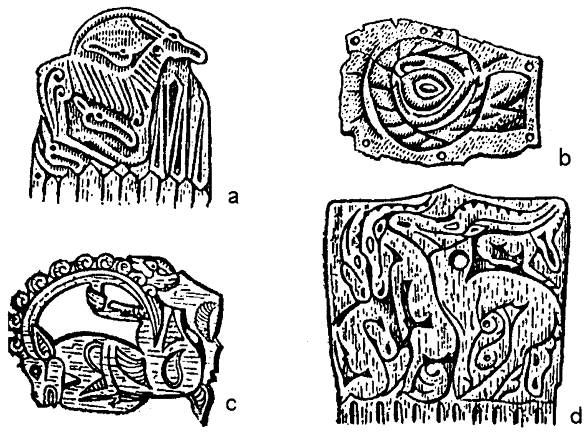


FIG. 24
A, D.COMBS
B-C. ZOOMORPHIC DECORATION
A, D. KHEMCHIK-BOM III
C. AIMYRLYG, GROUP 27
A, D. (BONE)
B-C. (BRONZE)

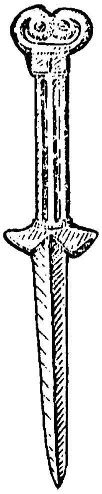


FIG. 25
DAGGER
(BRONZE)

found is in the form of two opposing griffins (Fig. 26). Over time both the guard and pommel ornamentation degenerated and lost their original form. Iron daggers imitate the bronze ones with butterfly-shaped guards and bar-shaped pommels. The daggers were worn in leather sheaths reinforced by wooden staves. Sometimes the sheath was decorated with ornamentation in red paint.

All fighting axes are eye-holed. They differ in sizes and the form of the butt which may be round, six-edged, or oval (Fig. 27). Some pole-axes are equipped with adzes which have a transverse blade that replaces the butt. All of the fighting axes had wooden handles measuring up to 80 cm in length. The handles were held in place with a wooden or metallic wedge. At the lower end the handles were often strengthened with bronze casings. The axe was suspended from the belt with straps or in leather cases. The bronze mace with a long wooden handle strengthened by a bronze casing has been discovered only in Tuva.



FIG. 26
DAGGER POMMEL
(BRONZE)
OPPOSING GRIFFINS

Arrowheads of bone and bronze are very numerous and diverse with the most common arrowheads of the time being tanged and trilobed with feathered surfaces (Figs. 18 b-c, 28). They also vary in the form of their heads and feather outlines.

Bone arrowheads are extremely diverse and may be two-feathered, trilobed or tetraheaded, or hollowed bullet-shaped, or rhomboid tetraheaded (Fig. 19). The abundance of arrowhead forms may be indicative of a specialization. Bone arrowheads with blunted or rounded points or wooden arrows were probably used to hunt birds and fur-bearing animals while small bronze arrowheads were used in combat.

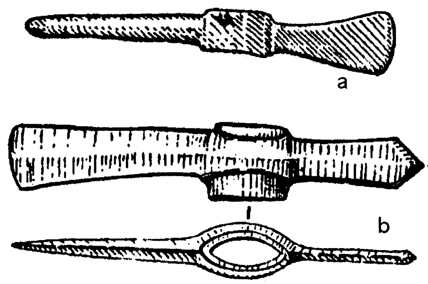


FIG. 27
FIGHTING AXES
[ADZE-AXE]
(BRONZE)

Arrows were carried in long cylindrical quivers made of leather. The quivers were strengthened for rigidity by placing long wooden pieces along the edges. Some fragments of birch bark quivers with leather pieces attached have also survived. Occasionally the quivers were ornamented with a zigzag design. Bows have survived which measure up to 1 m in length (Semenov and Kilunovskaya, 1990, p. 43). The length of arrows measures up to 50 to 60 cm in length. Variations in the size of arrowheads make it possible to surmise that both small and large bows were used.



FIG. 28
ARROWHEAD
TRILOBED
TANGED
(BRONZE)

Horse harnesses consisted of simple annulated bridles. The cheekpieces were rod-shaped and the bits were frequently two-holed (Fig. 8u). Other bridle elements are quite simple, often carved from bone, and maintained the traditional forms of the previous period.

Tools and implements of labor are represented by a diverse set of items which do not characterize the full range of domestic production. Knives in combination with whetstones and awls are especially numerous. Many knives have been excavated with their leather, or wood and leather sheaths. The sheaths are often decorated with different geometrical designs and have fringes along their edges. Four-edged awls were found in special compartments.

Beginning in the Arzhan Period the nomads skill in wood processing was due to their use of

a suitable instrument which was probably a celt. Judging by the marks left on the chamber logs of the kurgans at Arzhan, Sagly-Bazhi, and Aimyryga, several types of celts were used. The most common were those that had a rectangular blade between 3 and 6 cm wide and one loop for attaching the blade to the shaft (Fig. 22a).

Only fragments of clothing have survived making it impossible for researchers to completely reconstruct the styles. It can be said with confidence that silk and woolen clothing was worn under the outer layers made from leather and furs (Mandelshtam, 1992, p. 189). Clothing of similar style has been found among the neighboring Altaian tribes where various articles have survived to this day in a splendid state of preservation (Gryaznov, 1950; 1960; Rudenko, 1953).



FIG. 29
BELT BUCKLE
AIMYRLYG GROUP
(BONE)

Belts were ornamented with bronze and bone buckles, which were used for fastening and had fine zoomorphic depictions (Fig. 29). The more modest examples of loop-type buckles often fastened a band around the midriff. Broad belts made from thick leather were used to suspend objects. At the point where a heavy object such as an akinakes (short sword) or fighting axe was suspended, a bronze buckle-ring with an attached hook was usually fastened to the belt. The richest belts were also decorated with rectangular bone plaques boasting finely carved animal figures in the Scytho-Siberian style. The compositions are intricate and in the central section display numerous and diverse scenes of torment. In all probability the belts were a status symbol for the male warriors and were utilitarian as well as having a more complex semantic function. Judging from the ethnographic data, the combination of colors and ornaments together with certain zoomorphic decorations could indicate the social status of a person as well as his ethno-clan affiliation (Sagalayev and Oktyabrskaya, 1990, p. 27)

Typical during this time are disc-shaped mirrors with variations in the types of handles. One type of mirror with a knob- or loop-shaped handle is associated with the Early Period. The most widespread type of mirror had a handle attached to the edge. Occasionally the handle terminated with a figurine of a standing or lying animal. In other cases, depictions of goats, Siberian stags, and fighting feline beasts of prey were carved on the back of the mirror (Fig. 30). Both women and men carried their mirrors in leather cases. The cases were decorated with red painting, applique, or embroidering.



FIG. 30
MIRRORS
(BRONZE)
ZOOMORPHIC DECORATION
AIMYRLYG GROUP

Toilet articles used only by women were made from bone or wood. Wooden combs were carved either from a single piece of wood or were assembled from several carved pieces. They were decorated with incised geometric designs or zoomorphic depictions. All of the toilet articles were safe-guarded in round, oval, rectangular, or trapezoidal leather handbags decorated with geometric ornamentation in red paint. Decorative elements such as fringe were also added along the edge of the handbag. Jewelry was extremely numerous and versatile. Earrings were made of silver and gold and are generally circular in form with some variation. Earrings with beads suspended from a small chain are the most common. Others were further embellished with granulation, fine beads, and various tubular pendants. Many beads of the most diverse forms have been found. The shapes include oval, disc, cylindrical, barrel, and ball. The beads were carved from carnelian, turquoise, chrysolite, and bone, and were fabri-

cated out of glass. Glass beads are usually green or blue. Beads with two to nine eyes are also known. Torques were usually tubular with open ends. Crescent-shaped examples with small openings along the edges for suspension are less frequent. Pins are rod-shaped and were frequently decorated with an entire animal figurine on the head. During the Late Scythian Period iron pins became widespread although some were still made of bronze, bone, and even gold. Clothes were also decorated with various plaques which were sewn onto fabric. The plaques illustrated various zoomorphic themes that were popular during the Scythian Period (Fig. 31). The fangs of Siberian stag, and kabarga, and teeth of small beasts of prey were used as pendants. This indicates that the nomads had a special attitude toward teeth used as pendants, and that these pendants were probably protective amulets.

Both clay and wooden vessels are well represented during the late stage. One clay vessel, or sometimes a clay and wooden vessel, was placed in a grave. The forms of vessels are very diverse and include jugs and pots. The pots are egg- and ball-shaped, biconical, or shaped in the form of a cauldron (Fig. 32). Ornamentation is represented by vertical and horizontal rollers, and concentric circles in bas relief. Monochromatic painted designs were geometric and zigzag. Small basins are rather rare. Wooden vessels do not survive well but are represented by basins, kegs, scoops, and dishes with a rounded form (Fig. 33). Some wooden containers also had legs (Fig. 33c). Small wooden boxes and ornamented baskets not made from birch bark were also found in the graves (Fig. 34).

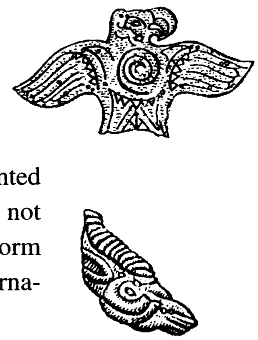
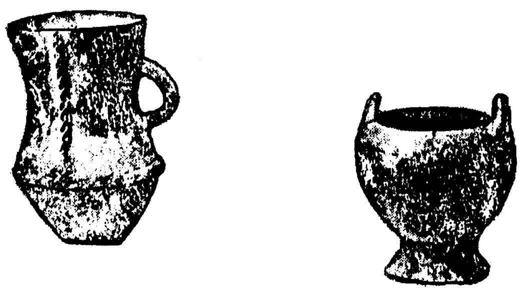


FIG. 31
PLAQUES
(GOLD)
EAGLE AND FISH

Bronze vessels in the burial complexes are very rare finds. Those that were excavated are small spherical-shaped pots with horizontal handles. Based upon analogies of similar material from the Pazyryk kurgans in the Altai Mountains, the vessels were used to inhale incense during ritual ceremonies (Fig. 35). Among the chance finds are large bronze cauldrons with vertical handles which were placed on supports (Kyzlasov, 1979, Fig. 35; Bokovenko, 1981, Fig. 1). According to Herodotus, such large cauldrons were used to boil meat during vari-



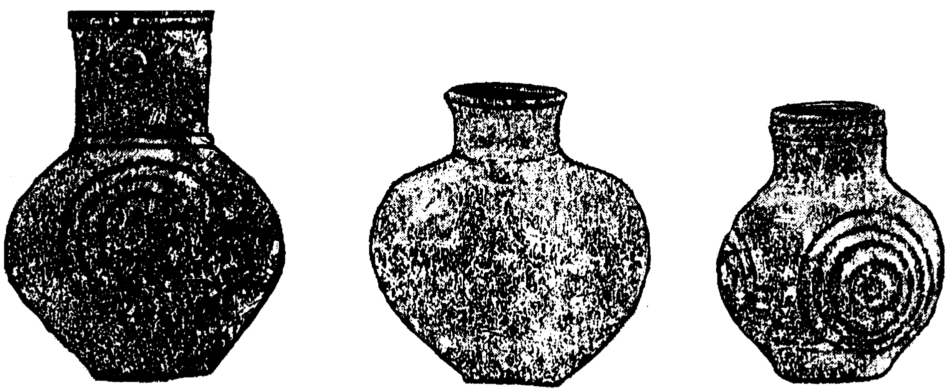
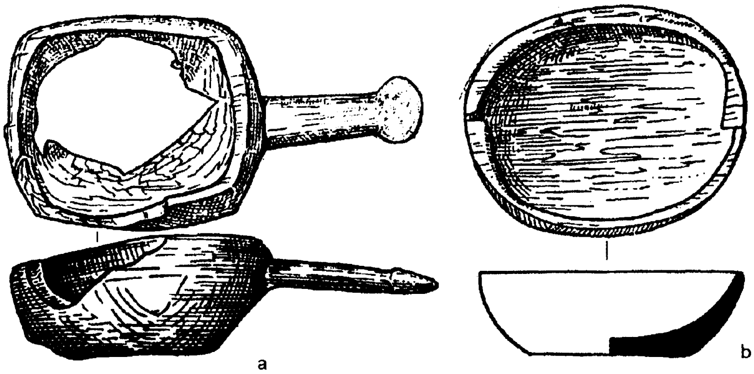


FIG. 32
CERAMIC VESSELS
5TH-4TH CENTURIES B.C.



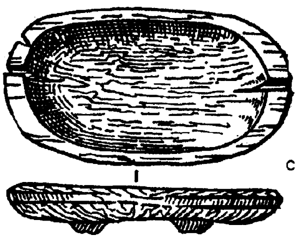


FIG. 33
TRAYS AND BOWLS
(WOOD)

ous ritual and sacrificial ceremonies (Herodotus, IV, 60, 61). The vessels could well have been used for regular cooking also.

In general, all of the material including the architecture of the burial structures, the burial rituals, and the types of artifacts used during the different time periods demonstrate the gradual Scythian cultural development.

A reconstruction of the economy indicates that the nomads specialized in mobile cattle breeding based on sheep, cattle, horses, and some camels. Their main staples were meat and milk. The principal type of dwelling was the transportable yurt made of felt, skins, or leather. Because of the very severe winters the nomads also constructed polygonal wooden dwellings similar to the type known until very recently among the cattle-breeders of the Altai Mountains and Central Asia. These types of dwellings are illustrated on the Boyar petroglyphs located in the Minusinsk Basin (Fig. 36).

An most important place in the life of nomads belonged to the horse. This animal was the faithful companion of the people during their long and hard migrations. The horse accompanied his master during his last journey (Arzhan, Badanka IV, and Sagly-Bazhi sites) where he was adorned with an expensive harness. The horse was a favorite theme in graphic art (Grach, 1980, Figs. 40-41). The animal was also glorified in epics (Lipetz, 1984, p. 231).

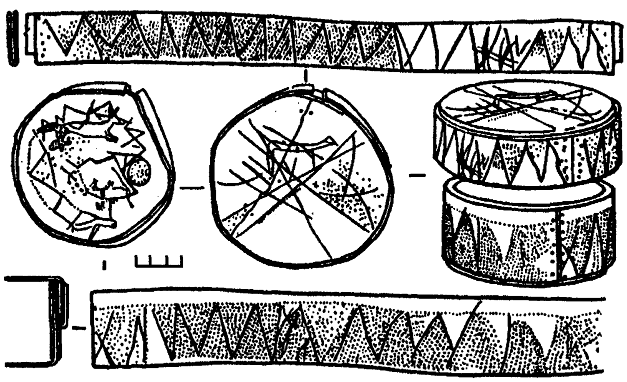


FIG. 34
DECORATED BOXES
AND BASKETS
(WOOD)

According to A.D. Grach, the Central Asiatic burials such as those found in the Arzhan Kurgan and the ritual temple complexes known from Ulug-Khorum give indirect evidence of the ancient populations' concepts of the cults of the sun and the horse (Grach, 1980, p. 64). The architectural design of both constructions reflect the shape of the radiating sun rays. Additional information on the cultic beliefs of the nomads which substantiates Grach's hypothesis is found in ancient written sources (Herodotus, I, 216).

The social structure of the Tuvinian nomad communities during the Scythian period can be reconstructed by comparing the size and complexity of various burial structures, by estimating the quantity of labor required for each type of construction, and by comparing the wealth of the artifacts found in the burials. On



FIG. 35
RITUAL VESSEL
(BRONZE)





FIG. 36
BOYAR PETROGLYPHS
MINUSINSK BASIN

basis of these data the following social groups have been recognized:

1. Chiefs of tribal unions as illustrated by the "royal" burials specifically at Arzhan.
2. Tribal chieftains and the higher aristocracy who controlled larger but restricted territories as illustrated by the large Uyuk kurgans.
3. Military persons and horsemen as illustrated by artifacts in the burials.
4. Laymen whose burials are found in practically every cemetery.
5. The lower strata of the society such as domestic slaves whose graves, placed in peripheral areas of the kurgans, contain no artifacts.

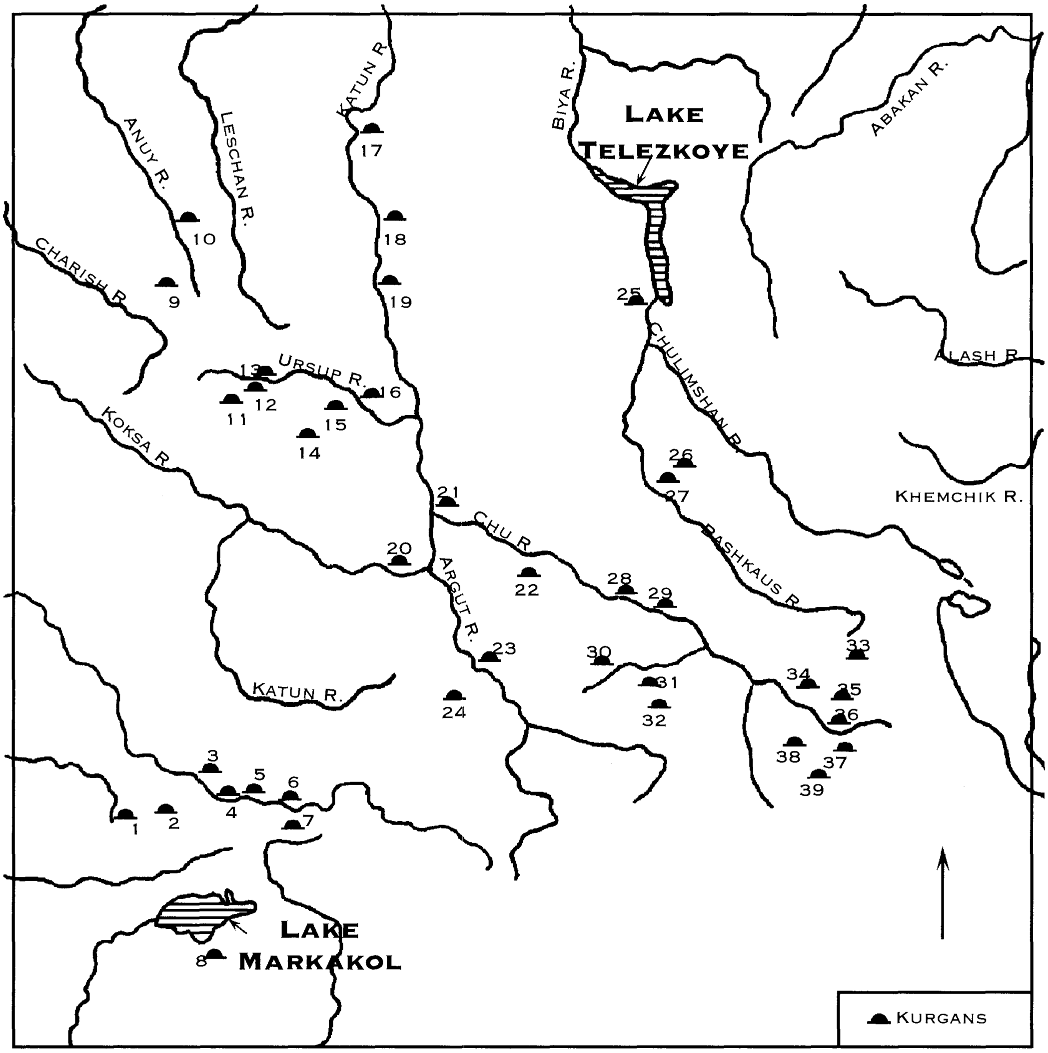
It could be that the social structure was even more intricate because not all of the indicators have been found which would adequately reflect specific features of the burial structures and the rituals (Grach, 1980, p. 48). For example, no graves of priests have been recorded to date even though Scythian priests are known from written sources. It is possible that in the early stages of development functions were performed by chieftains or by some of their retainers.

According to physical anthropologists' data, the Europoid population was prevalent in Tuva at that time. This ethnos was gradually replaced by Mongoloid ethnic types (Alekseyev, 1974, p. 370) who arrived there by the end of the lst millennium B.C. from the interior regions of Central Asia.

MONUMENTS

1 - MAIEMIR
2 - SOLONECHNII BELOK
3 - BOL'SHIE SKALY
4 - KOPAI
5 - KATON-KARAGAI
6 - CHERNOVOE
7 - KURTU
8 - USPENKA
9 - YAKONUR
10 - CHERNII ANUI
11 - SEMISART
12 - NIZHNII TYUMETCHIN
13 - KARA-KOBA
14 - BICHIKTU-BOM
15 - KARAKOL
16 - KUROTA
17 - GORNO-ALTAISK
18 - UST'-KYUM
19 - KARA TENESH
20 - TURGUNA & AK-KEM
21 - ADIR-KAM
22 - BELII BOM
23 - ARGUT
24 - KOK-SU I
25 - KUMURTUK
26 - PAZYRYK
27 - ARAGOL
28 - BOROTAL
29 - KURAI
30 - KYZYL-DZHAR
31 - TALDURA
32 - ELANGASH
33 - UZUNTAL
34 - KARA-LYURGAN
35 - BARABURGAZY
36 - YUSTYD
37 - TASHANTA
38 - BURATY
39 - ULANDRYK.

KEY TO MAP 17. SCYTHIAN MONUMENTS IN THE ALTAI MOUNTAINS



Map 17. Scythian Monuments in the Altai Mountains

CHAPTER 18

SCYTHIAN CULTURE IN THE ALTAI MOUNTAINS

NIKOLAI A. BOKOVENKO

The Altai Mountains are adjacent to Tuva on the west and northwest. The Altai Mountain area was closely connected culturally with Tuva during the Scythian Period. The western Sayan Mountains gradually turn into the Altai Mountains, and their climatic conditions, which are sharply continental, are very similar. It is only natural that the two regions demonstrate certain similarities in their cultural and historical development.

The Altai Mountains, with elevations up to 4000 m, are the highest in Siberia. The Altaian steppes are found at the base of the mountains. Typical of these mountainous regions are the vast hollows covered with natural pastures. These are found at different altitudes between the higher ranges. As any other mountainous region, the Altai is divided vertically into several climatic zones which include the steppes, the taiga (forests), the Alpine meadows, and, at the highest points, the mountainous tundra and glaciers. The top soil and vegetation on the steppes are similar to that found near the Ob River. However, the soil is rockier and mountainous types of plants are prevalent. In the areas of the Altai Mountains where the snow cover is thin, particularly in the southeastern region, cattle can be pastured year-round.

Archaeologically, the Early Stage is represented in the Altai Mountains by only a few kurgans (Map 17). The deceased were buried at the ancient ground surface level covered with a stone facing. They were also buried in shallow pits surrounded by a circular stone fence measuring 6 to 10 m in diameter. The bodies were buried contracted, generally placed on their left sides, with their heads oriented to the southwest. The horses were usually placed to the south of the burial sites. Horses were buried in the same positions as the men (Ust-Kuyum, Kurgan 1) or on their bellies with their legs tucked under and their heads oriented southwest (Kurtu II, Kurgan 3). Saddle horses with harnesses were also buried within the fence (Fig. 1). Sometimes two horses were buried (Chenij Anui) with one of them harnessed (Molodin and Petrin, 1985, Fig. 10). Somewhat later, instead of a horse, a horse hide or only the bridle was buried with the deceased.

The deceased were accompanied with artifacts such as weapons, knives, and decorations, and with a horse bridle for riding. The general trend in the burial ritual of the 8th-6th centuries B.C. was the gradual transition to the practice of burying a bridled horse or horses in the same grave as the men but usually outside of the timber grave. During this period burials of adults without horses are also known.

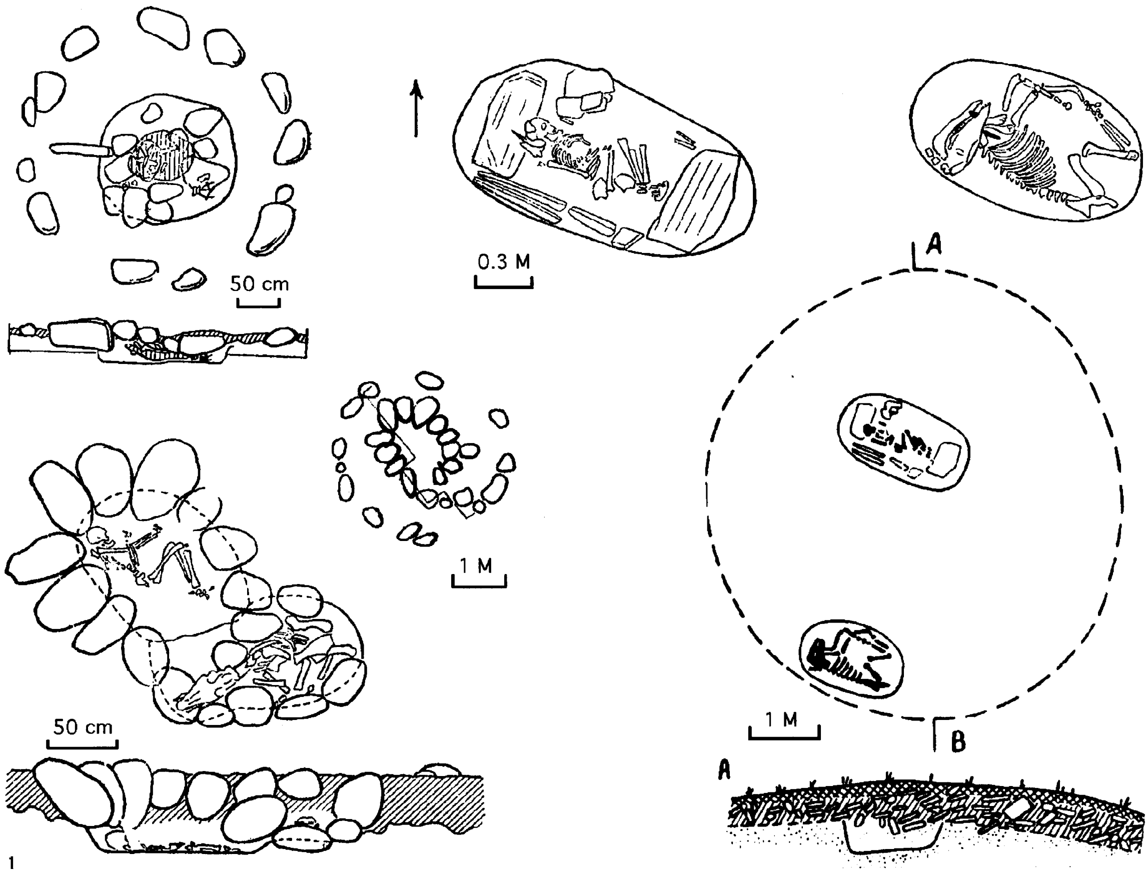


FIG. 1
HORSE
BURIALS

Horse harnesses are represented by bridles which have a few variations. The earliest bridles were without a bit or, more exactly, the bits were made of a twisted strap which has not survived. The bridles had curved three-holed bone psalia with each end decorated differently. The area around the holes had a slight thickening (Fig. 2). Later, when bridle parts were cast out of bronze, new styles became a possibility. Bridles bits were cast in two parts with stirrup-shaped ends and occasionally with an additional round hole. The cheekpieces are of different types and include v-shaped ones with an additional projection, and rod-shaped ones. The latter type imitates the three-holed bone psalia (Fig. 3) (Bokovenko, 1986, p. 18). This bridle is considered innovative because the cheekpieces connect to the bit by means of special overlapping straps. Beginning in the 6th century B.C. one-ring bridles appeared. The inner diameter of the ring is more than 20 mm. This ring received a two-holed cheekpiece held to the horse's muzzle with two straps (Fig. 4). This system of attachment has survived practically without changes to this day.

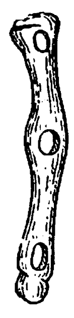


FIG. 2
THREE-HOLE
PSALIA

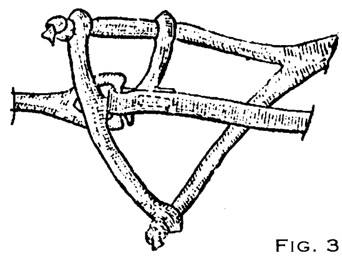


FIG. 3
V-SHAPED CHEEKPIECES
FOR BRIDLE BIT

Armaments of the period are represented by the same main categories which were characteristic of those from Central Asia. These include long swords and daggers, shafted fighting axes, and arrowheads of typologically early forms. Daggers are mostly of three types and are distinguished by variations in the handle and guard. The first type has a mushroom-shaped pommel and a small wing-shaped guard (Fig. 5). The second has a figured handle, butterfly-shaped guard, and flat pommel (Fig. 6). The third type has a zoomorphic pommel decorated with a running spiral design and a distinctly expressed slightly lower guard. These dagger types are related to the daggers dating to the Late Bronze Age in the Sayan and Altai Mountain region (Chlenova, 1976, p. 39). The length of blades vary from 14 cm to 37 cm. The appearance of long blades and the projecting guards indicate a new functional purpose for this type of weapon. It was employed not only in hand-to-hand combat but also in mounted fighting where longer swords with guards were required. Also characteristic of the early stage are spearheads (Fig. 7a) and holed fighting axes (Fig. 7 b-d). These are small but convenient for mounted fighting. A bow with a set of two-bladed hollow-shafted arrowheads were also used. During the 7th and 6th centuries B.C. bronze and bone two-bladed and trilobed arrowheads either hollow-shafted or with tangs appeared (Fig. 8).

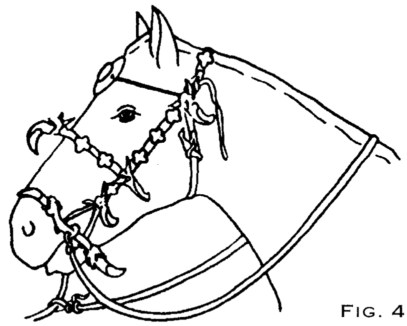


FIG. 4
BRIDLE WITH
TWO-HOLED CHEEKPIECE

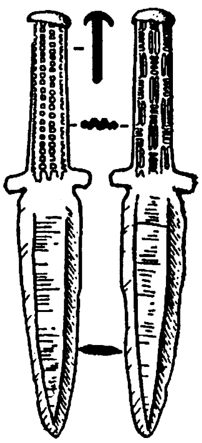


FIG. 5
DAGGER
MUSHROOM-
SHAPED POMMEL

Domestic items which have a rather wide distribution include the large disc-shaped mirror with a raised rim around the edge and a central loop for suspension. The Bukhtarma mirror is particularly remarkable because the reverse side has depictions of five deer and a mountain goat rendered in the Scytho-Siberian animal style.

The bronze knives are curved slightly and typologies differ in the forms of the pommels. They may be mushroom-shaped, arched, loop-shaped, or zoomorphic (Fig. 9). Belt accoutrements are not complete without whetstones. As a rule, whetstones are elongated and have a small hole in one end for suspension.

Early Stage decorations are represented by relatively rare but diverse jewelry types. Ring-shaped wire earrings made of gold or bronze which often have long conical pendants are most frequently found (Fig. 10). Their origins may be found in similar earrings dating to the Late Bronze Age. Such pendant earrings were frequently depicted on the Central Asian *olenniye kamni* (Fig. 11). Other jewelry characteristic of this time period includes three-grooved plaques, white cylindrical paste beads, and necklaces of fangs from such animals as the kabarga, maral, and fox. The grooved plaques were widely used for fastening clothes, arm pieces, and harnesses. An unique decorative item worn by male warriors was a bronze or gold crescent-shaped breast plate. This item has not been found in all male graves. Its presence in a burial may indicate the high rank of the deceased and also may have been a symbol of power.

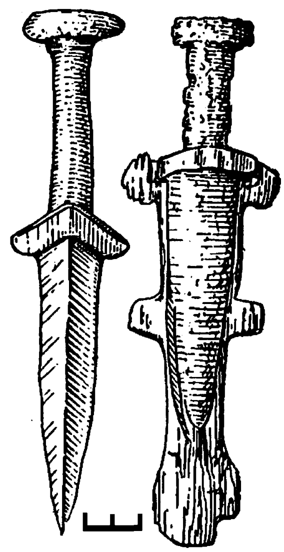


FIG. 6
DAGGER
BUTTERFLY-SHAPED
GUARD

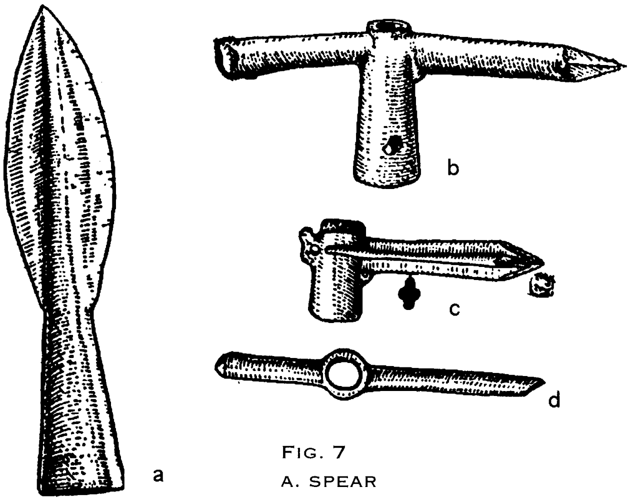


FIG. 7
A. SPEAR
B-D. FIGHTING AXES

As in Tuva, *olenniye kamni* have been discovered in the Altai Mountains. Up to the present time, more than 50 such stone sculptures are known in this region (Kubarev, 1979, p. 4). Their sizes vary and the quality of elements depicted is not as fine as those in Tuva. In particular, not as many stag depictions are known as in the territory of Mongolia where numerous examples have been recorded. The most typical design found on the Altaian *olenniye kamni* are three bands on the face side, with earrings and necklaces incised on the upper part of the stone. On the lower part of the stone a belt holding a dagger, a fighting axe, and a quiver are often depicted. Zoomorphic images are not numerous and seem to have been drawn quite carelessly on the entire surface of the stone without pre-planning. These are quite unlike the splendid examples from Transbaikalia and Mongolia (Volkov, 1981).

Rock drawings are extremely numerous. Although it not always possible to determine their chronology, the early Scythian group of petroglyphs stand out distinctly. The manner in which the animals' legs are depicted, on "tiptoe" or in "stop dead" position, makes it possible to date silhouette depictions of stags, horses, and other animals in this style precisely to this period.

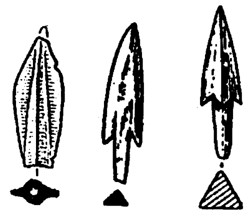


FIG. 8
ARROWHEADS
7TH-6TH CENTURIES B.C.

The Pazyryk Stage is the most thoroughly studied period in the life of the Altaian early nomads. This stage is represented by a great number of burial sites left by different social groups. The graves contained a huge quantity of various domestic tools, weapons, and works of art executed by excellent experts of the time. Because of the specific qualities of the soil, many artifacts carved from wood and sewn from leather, fur, felt, wool, and silk have survived (Fig. 12). The artifacts reflect the high artistic skills of the Altaian nomads whose art and culture were very original. The themes of the art and trade items that reached them from the ancient Near East and China were often reinterpreted to satisfy local tastes, traditions, and ideas.

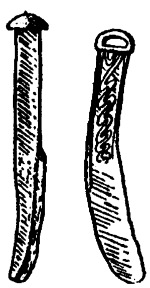


FIG. 9
KNIVES
(BRONZE)

During the Pazyryk Stage the burial ritual changed somewhat but in general related to the previous period. Ordinary community members and warriors were buried in small kurgans surrounded by a circular stone fence. The kurgan embankment measured from 3.5 m to 25 m in diameter and was up to 1 m in height. The dead were buried in log coffins or stone boxes arranged in shallow grave pits. Sometimes 1 or 2 harnessed horses were placed to the north of

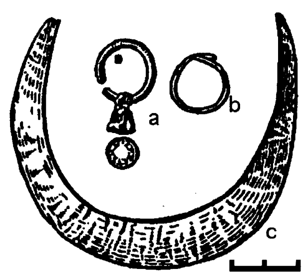


FIG. 10
A-B. EARRINGS
C.TORQUE

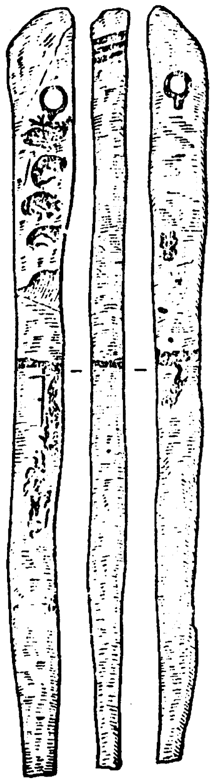


FIG. 11
OLENNIYE KAMNI
[DEER STONE]
(CARVED STONE)
YSTYDSKII
COMPLEX

the deceased. The dead were usually placed on their left or right side with their legs contracted and their heads oriented to the east, or more rarely, to the west (Fig. 13). Single, double, and group burials with up to 3 or 4 people have been recorded. Children were often buried in log coffins or in small stone boxes.

Accompanying artifacts are standard. Male graves contained various pieces of armament including daggers in wooden sheaths, fighting axes with long wooden handles, and quivers. In some burials trilobed bone and bronze arrowheads have been found. Belts were decorated with rectangular wooden or bone plaques which were ornately carved. Headgear included carved wooden diadems exhibiting zoomorphic themes (Kubarev, 1987, Fig. 27, 45, etc.). Carved wooden artifacts that decorated the deceased's clothing have survived especially well in the burial grounds at Ulandryk in the Chuiskaya steppe. A unique child's costume made from leather also was found in the Ulandryk burials. The costume consists of a short fur jacket of red color with black appliqued roosters along the sleeves and front hem. The wide collar, sleeves, and hem are fur-edged. High yellow-brown leather boots protected the feet. The leather cap was edged with fur (Kubarev, 1987, Fig. 30). Similar headgear has been excavated from the second Pazyryk Kurgan (Rudenko, 1953, Table XCVI 2).

Vessels with food were placed either at the head or on the northern side of the deceased. Trays with wooden legs are rectangular or ellipsoid. The cups, mugs, and clay jars have diverse ornamentation which is either carved or painted. The decorative motifs on the pottery include line sequences, scallops, arches, curls, and bands of triangles (Fig. 14). According to S.S. Sorokin such freedom of artistic fantasy marks a completely new phenomenon if compared to that of the Bronze Age. The earlier time period had been dominated by a canon which demanded endless repetition of the same theme. The new styles testify to the relatively free and innovative spirit of the nomadic cattle breeders (Sorokin, 1978, p. 188).

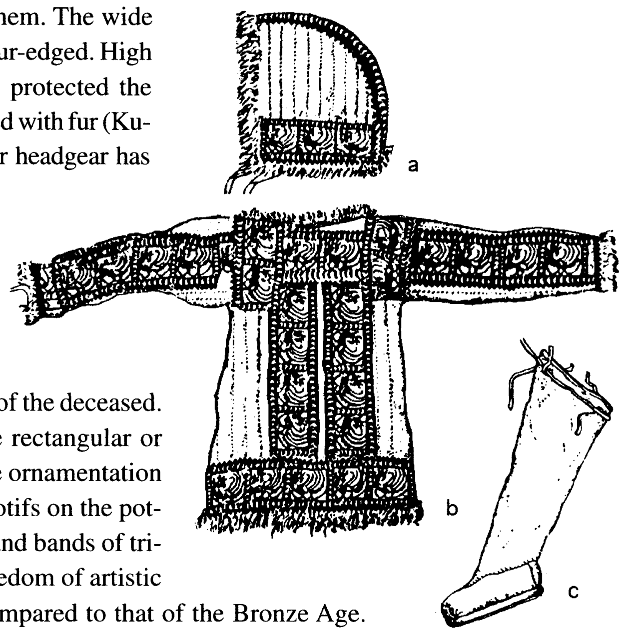


FIG. 12
A. HOOD
B. CAFTAN
C. BOOT
ALTAI BURIALS

Horses were buried with bridles and saddles in place. Bridles are made from bronze and iron. By the end of this cultural period the number of iron bridles had increased significantly. A two-holed bit was inserted into a one-ring bridle link and was secured by means of the cheekpieces. The bridles were decorated with various plaques and pendants (Fig. 4). The appearance of leather saddles with light wooden frames occurs during this period.

A complete reflection of all aspects of the economic and spiritual life of the nomads is provided by the material culture excavated from several groups of kurgans which belonged to high

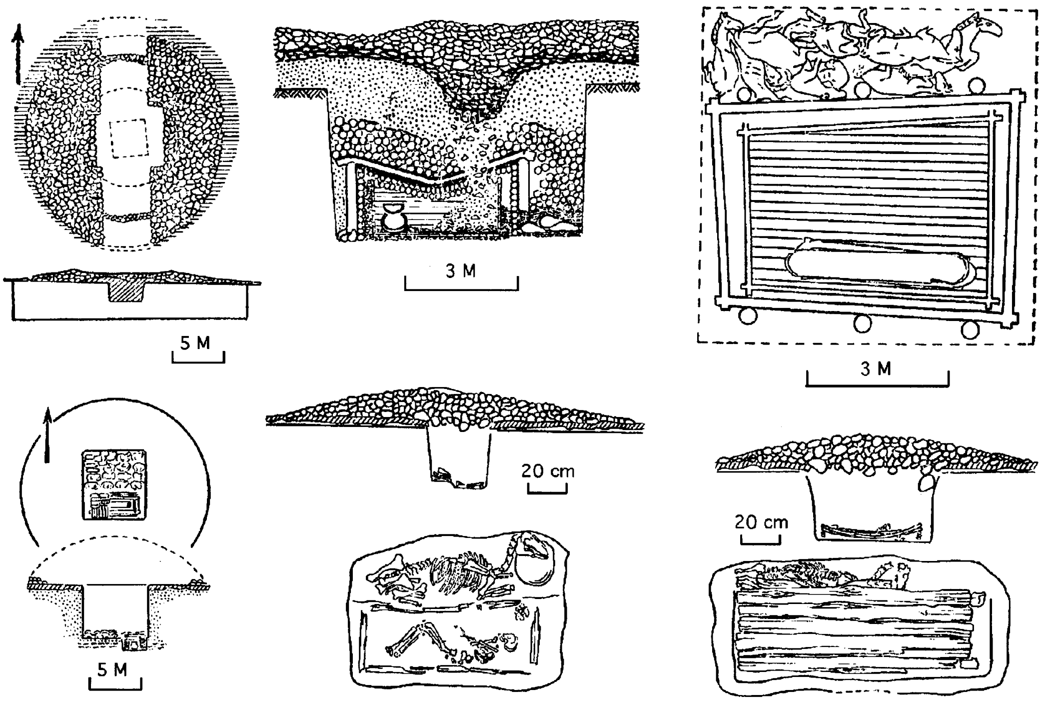


Fig. 13
Burials
Pazyryk Stage

nobility. In the eastern Altai Mountains these were the Pazyryk Kurgans 1 and 5, and in central Pazaryk the kurgans were located at Tuekta and Bashadar. These three groups of kurgans are considerably larger with stone embankments measuring between 40 to 60 m in diameter and more than 2 m in height. Grave pits held wooden frameworks, some of which were double width, and had a surface of up to 16 m^2. Bridled and saddled horses had been placed in the burial north of the framework. Within the constructions the dead were buried in fine log coffins. Unfortunately, many of the graves have been robbed. However, because of the permafrost, the horses, their harnesses, and the artifacts made from organic materials have been preserved essentially intact.

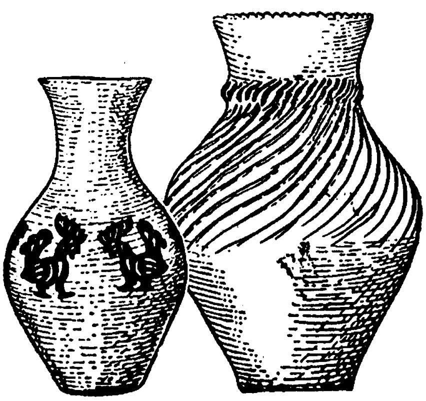


Fig. 14
Ceramics
Pazyryk Stage

Ten splendidly reared horses with golden-chestnut colored coats were discovered in Pazyryk Kurgan 1. According to M.P. Gryaznov, the best of the horses belonged to the famous ancient Central Asiatic breed which were the progenitors of the famous Akhaltekin horses of modern times (Gryaznov, 1990, p. 167). The rest of the horses were crossbreeds of the Central Asian type with the small but strong and hardy local horse. All of the horses have different marks on their ears and therefore probably belonged to different people. The horses were most probably "gifts of grief" to the buried chieftain from his subordinate tribal eldermen.

The horses were adorned with splendid harnesses. Their manes and even their eyebrows were carefully clipped. Generally, two horses were adorned more magnificently than the others and probably belonged to the chieftain. One of the principal horses had a head mask in the shape of a horned tiger which

enveloped the whole of the horse's muzzle. The mane was covered with felt ornamented with stylized roosters. The horse's tail was hidden within a patterned sheath. The saddle was framed with carved fish pendants. The other principal horse had a head mask in the form of a green tiger elaborated with huge antlers made of thick leather. Dangling from this horse's saddle were depictions of tigers made from bright red felt.

The themes used for the horse decorations in the Pazyryk kurgans are extremely diverse. The stylistic depictions and technical executions also vary. An array of materials was used including wood, leather, felt, furs, and horse hair. Birch bark in the compositions was stained or dyed in different hues. Some artifacts were covered with gold or tin foil. Others were painted with ocher or cinnabar to create a highly colorful effect.

The dead were buried in fur, leather, or felt caftans, hood-shaped headdresses, and trousers. Armament in the burials included bow and arrows ornamented with painted designs (Rudenko, 1960, Table CXXXII), and decorated wooden shields. Small wooden tables with carved legs were placed in the burials. The burial chambers in Pazyryk 1 and 5 yielded fragments of fine carpets with depictions of winged griffins, fallow deer, saddled horses and horsemen, and complex mythological scenes. Most likely, the carpets originated from Central Asia or Iran where the canonical theme of walking animals or other images were most widespread. Pazyryk Kurgan 5 has also yielded a white felt sheet with colored applique. The designs include two rows of repeating depictions of a priest sitting on a throne with the holy tree in his hand and a horseman standing in front of him. This motif was placed between ornamental bands. Along the perimeter of the burial four fine swans made from felt were attached to several poles.

Because some instances of embalming are known, especially in the cases of chieftains, it cannot be excluded that the marquee which had been constructed held the body for some time before the funeral. According to some Chinese and antique sources, tattooing was widespread among the steppe nomads and especially among the elite. In Pazyryk Kurgan 2 the mummified body of the chieftain was completely covered with tattoos depicting mythological beings such as stags with eagle heads, winged tigers, figures of mountain goat, and a mythic beast of prey with an eagle head on its neck.

Deceased chieftains were buried almost exclusively in large log coffins made of thick hollowed Siberian cedar. In one case, the log coffin was adorned with large finely executed carvings depicting four walking tigers, two elk, and three mountain goats (Barkova, 1984 pp. 83-89).

In addition to the usual set of accompanying artifacts, the kurgans at Pazyryk and Bashadar contained musical instruments made of wood and leather. Wooden harps of local production from Pazyryk II and Bashadar II were ornamented with designs similar to those found on the seven-string Assyrian instrument. Small tambourines were found in Pazyryk II, III, and V. These instruments were undoubtedly used to accompany singers and to create a specific rhythmic mood during various festivities and ceremonies.

Wooden means of conveyance are of exceptional interest. A trailer cart, a two-wheeled vehicle drawn by oxen, and a four-wheeled wagon were discovered in the burials. The latter was a light collapsible vehicle measuring up to 3 m in height, and had big wheels and a high platform with carved balusters. It would have been drawn by four horses. Two horses were placed along the tongue and the other two as outrunners along the sides or in tandem at the front (Gryaznov, 1990, p. 169). The imperfection of its design and the fragility of its wheels are distinct indications that the wagon

was the hearse used to carried the mummified chief's body to its last destination. There it was later dismantled and placed in the burial adjacent to the wooden framework.

The Altaian kurgans of the Scythian Period have provided excellent archaeological material from the burials. The artifacts have revealed many aspects of the nomads' lives, traits of their societal structure, the level of their economy, and the quality and variety of their handicrafts.

In addition to the kurgan burials that testify to a developed cattle breeding system in the northern areas, researchers also have studied settlement sites dating to the same time period, especially those found in the Ob River steppe region. The data collected indicate that the local cattle-breeders appeared to have had some permanent-type settlements and that they engaged in primitive agriculture. Excavations of their spacious dugouts and semi-dugouts which measured up to 200 m^2 have yielded numerous utensils and tools (Fig. 15). Artifacts from the settlements convincingly indicate that the population engaged in hoe agriculture, hunting, weaving, leather dressing, carving various vessels and dishes, bone and horn processing, and bronze casting. Bronze was used to make almost all items used in everyday life as well as very intricate art compositions. Lost wax casting was at a technically high standard and the bronze artifacts are notable for their high quality (Fig. 16). Gold processing also had reached the level of perfection and included nearly all techniques known today including casting, punching, and engraving (Minasyan, 1988, p. 57). Fine samples of goldsmiths' work are represented especially in the Siberian collection of Peter the Great (Fig. 17).

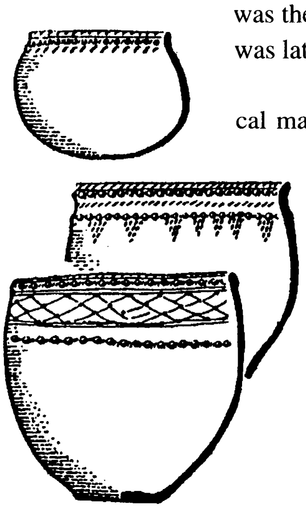


FIG. 15
CERAMICS FROM SETTLEMENT SITES
SCYTHIAN PERIOD

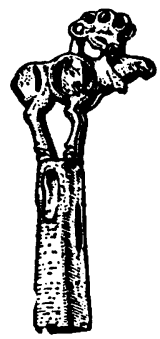


FIG. 16
POLE TOP FINIAL
REPRESENTATION OF A MOOSE
(BRONZE)

Some researchers connect the fluorescence of the arts with the appearance of concepts which placed warriors and epic heroes in the foreground of the nomadic society. Numerous monuments of fine decorative arts illustrated their originality in both content and execution. Ancient artists were especially skillful in rendering the dynamic motion specific to different animals species. To represent motion they depicted the animals with sharply turned bodies and specifically postured legs. This intensified the expression of the ornamental motifs. The complex system of the nomads' outlook on the world must be further studied but it is clear that their vision was intimately linked with nature. Many symbolic signs reflected to some measure the social structure of their society. The symbolism expressed by the Scytho-Siberian animal style was incorporated into tattoos, clothing with the use of color and decorative plaques, and in their jewelry which included diadems, bracelets, and pendants. The same expression is found in horse harnesses where numerous representations of animals in bas relief, applique, and embroidery were employed. Symbolic signs were even expressed on carved furniture legs. The great kurgans of the nobility at Pazyryk, Bashadar, and Tuekta were the richest. Graves of other members of the society contained much less expressive artwork.

Studies of the character of the artistic depictions, the traits and combinations of ornamental motifs, and the location and number of horses buried with the chieftains permit a tentative reconstruction of the social structure of ancient tribes (Grjasnow, 1970, p. 214). Each tribe consisted of two fraternities. Each fraternity included five, seven, or eight families with specific symbolic signs.

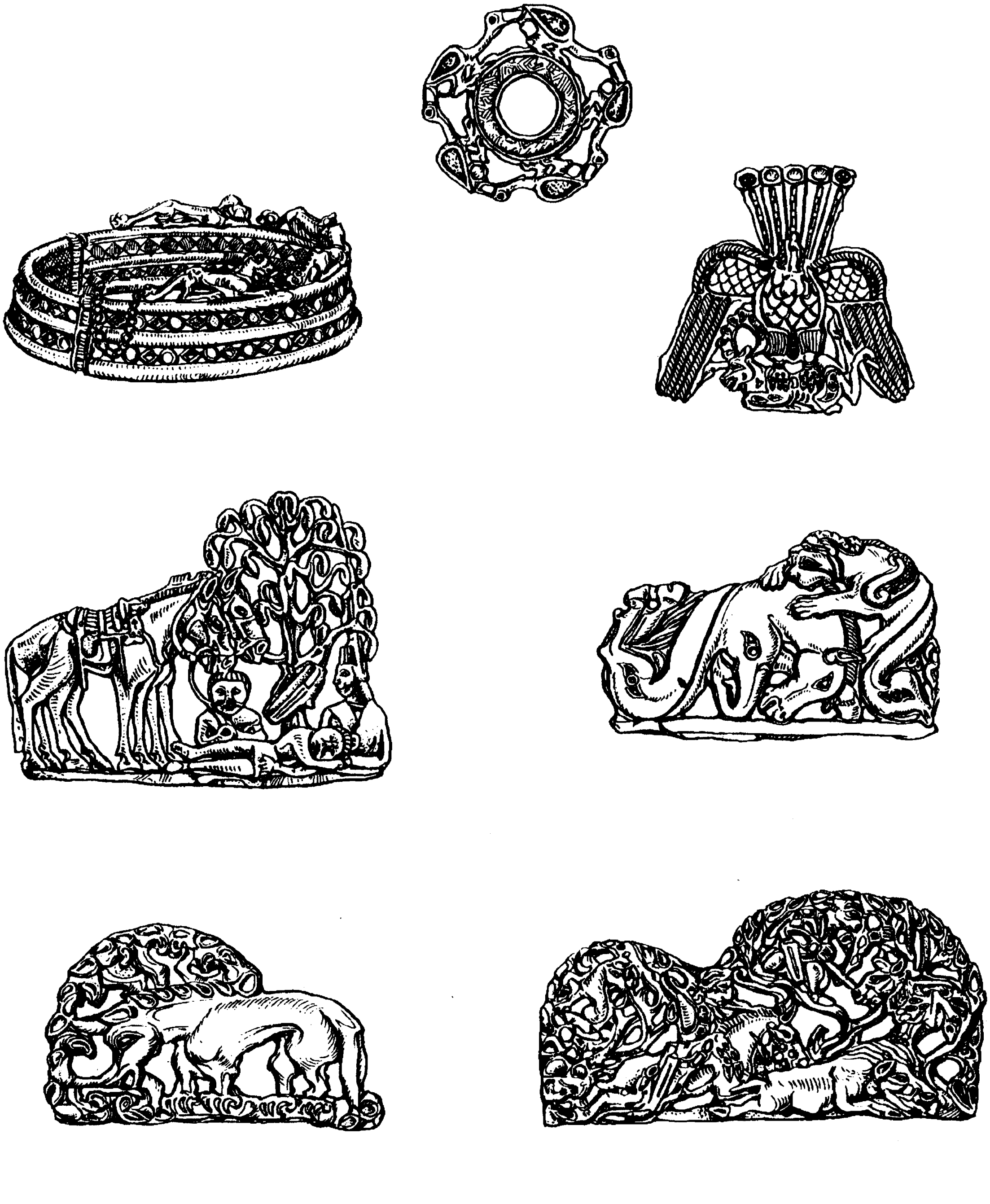


Fig. 17
Examples of plaques
from the Siberian Collection of
Peter the Great
(gold)



FIG. 18
PLAQUES
EXAMPLES OF SYMBOLIC ANIMALS
PORTRAYED ON SIBERIAN STEPPE OBJECTS

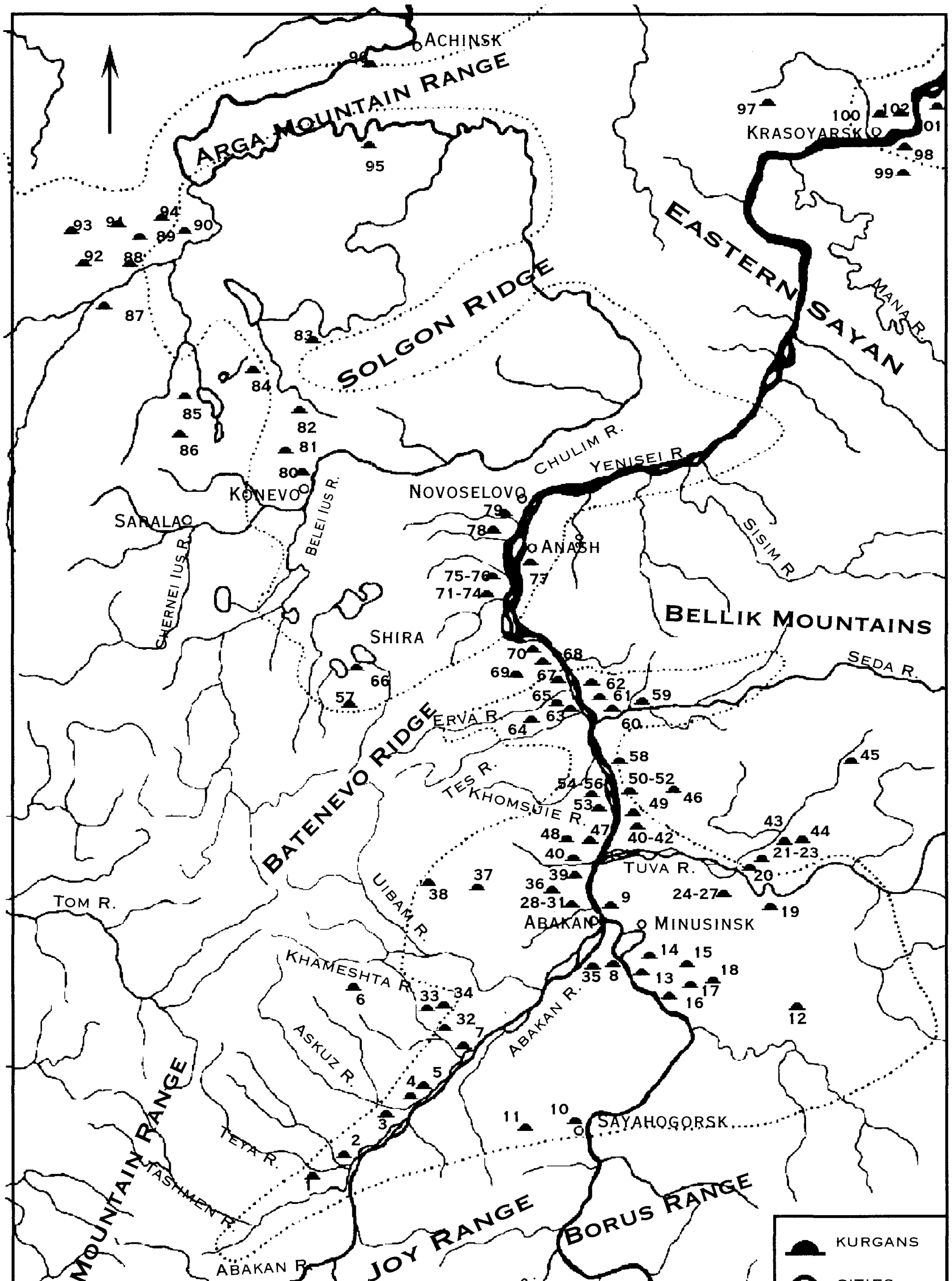
Judging by the abundance of depictions we may presume that there were families of deer, elk, the feline beast of prey such as the tiger and snow leopard, the wolf, and the bird of prey. Each of these symbolic animals constantly oppose one another in the works of art (Figs. 17-18). According to written sources, later tribal unions of Huns, Turks, and Uighers from Central Asia had similar societal divisive structures of "family clans" which traced their origins from various animals.

The 2nd century B.C. marked the beginning of a new era in the Eurasian steppes. Significant changes occurred in the burial ceremonies and in the culture. However, some individual elements of the material culture of the Scythian Period were still registered in a few sites of the later period. It appears that the Hun advancement to the west only partially affected the Altai culture and that the local population was successful in preserving the Scythian traditions for some time afterwards. However, the art forms which were highly developed, realistic in form, and mythological in content were lost (Gryaznov, 1990, p. 177). Only the oral traditions of the Altaian peoples retained some echo of the ancient heroic legends of the nomads and the elements of their fine arts.

Monuments of the Tagar Culture

1 - Fedorov Ulus
2 - Matkechik
3 - Bel'tyry
4 - Chartykov
5 - Kamyshta
6 - Uzunzhul
7 - Raikov
8 - Samokhval
9 - Nishnyaya Sogra
10 - Oznachennoe
11 - Medvedka
12 - Verkhnii Suetuk
13 - Krivinskoe
14 - Stanitsiya Minusinsk
15 - Tagarskoe
16-18 - Tagarskoe Ozero (Lake Tagar)
19 - Kochergino
20 - Malaya Inya (Litlle Inna)
21 - Tes'
22 - Ust'-Tes'
23 - Georgievskaya Gora (Georgievski Mountains)
24 - Minusinsk
25-26 - Tagarskii Ostrov (Tagar Island)
27 - Bystraya
28 - Abakan
29-31 - Abakanskaya Uprava
32 - Kara-Kurgen
33 - Uzun-Oba
34 - Kyzyl-Kul'
35 - Otkin ulus
36 - Askirovka
37 - Salbyk
38 - Kapchaly
39 - Bidzha
40 - Mokhov Ulus
41-42 - Tepsei
43 - Shalabolino
44 - Shalabolinskie Pisanitsy
45 - Vragina
46 - Galaktionovo
47-48 - Oglakhty Pisanitsa
49 - Buzunova
50-52 - Turan
53 - Sargov Ulus
54 - Sovetskaya Khakasiya
55 - Kichik-Kyuzyup
56 - Ulug-Kyuzyur
57 - Tuim
58 - Birya
59 - Syda
60 - Ust'-Syda
61 - Kamenka
62 - Baikalova
63 - Malie Kopeny
64 - Boyarskaya Pisanitsa
65 - Strashnii Log
66 - Shira
67 - Tashtyk
68 - Afanas'eva Gora
69 - Podgornoe Ozero
70 - Saragash
71-74 - Barsuchikha
75-76 - Chernovaya
77 - Anash
78 - Aeshina
79 - Kokoreva
80 - Kop'eva
81 - Uchum
82 - Uzhur
83 - Izykchul'
84 - Orak
85 - Beresh
86 - Parnoe
87 - Obyul
88 - Pichugino
89 - Yagunya
90 - Serebryakovo
91 - Bol'shoi Barandat
92 - Utinskoe
93 - Tisul'
94 - Nekrasovo
95 - Nazarovskoe
96 - Aidashinskoe
97 - Emel'yanovo
98 - Torgashino
99 - Zykovo
100 - Korkino
101 - Esaul'skoe
102 - Chastoostrovskoe
103 - Temir.

Key to Map 18. Tagar Culture Monuments



BOKOVENKO

MAP 18. TAGAR CULTURE MONUMENTS

CHAPTER 19

THE TAGAR CULTURE IN THE MINUSINSK BASIN

NIKOLAI A. BOKOVENKO

Due to its geographic location the Tagar Culture[1] of the Minusinsk Basin occupies a special place among the Scythian cultures of southern Siberian. The Minusinsk Basin lies in the Krasnoyarsk territory. The southern part of the Minusinsk Basin is surrounded on three sides by the high Altai Mountains and the western and the eastern Sayan Mountains. Only the northern side is open leading into the Kansk-Achinsk forest-steppe region (Map 18). Because of its relative isolation the Tagar Culture was less affected by external influences from other civilizations. Its development was more dependent upon the local traditions that had formed during the Bronze Age. Many researchers are inclined to support the idea of an autochthonous origin of this original culture. S.A.Teploukhov and M.P. Gryaznov have deduced, based on the analysis of burial structure designs and the customs and accompanying artifacts, that the Tagar Culture evolved from the previous Karasuk Culture[2] (Teploukhov, 1929; Gryaznov, 1968). Traits of similarity are particularly distinctive when comparing the late stage of the Karasuk Culture dated to the 10th-9th centuries B.C. and the Early Tagar Period, dating to the 8th-6th centuries B.C. Excavations also confirm the existence of burial sites with materials which mark the transition between the Bronze Age and the Early Tagar Period particularly in the south of Khakassia (Pauls, 1983, pp. 70-72). These sites indicate the complexity of the transitory process in which groups of different origins participated (Gryaznov, 1968, p. 186). Researchers are now determining what influence the Andronova Culture had on the pottery, bronze artifacts (N.L. Chlenova, A.I. Martynov, M.L. Podolsky, and others), and individual images. Compositions developed by different tribes who occupied the Minusinsk Basin and Central Asia during the Bronze Age became part of the Tagar art style (Ya. A. Sher, V.V. Volkov, E.A. Novgorodova).

Tagar burial grounds are found essentially over all the southern part of the Krasnoyarsk territory. Even today the burial grounds are quite visible due to the presence of vertical stone stelae along the perimeters of the slab fences. Graves in the earliest dated cemeteries are not numerous. The design of the fence is the same. In contrast, cemeteries belonging to the subsequent period contain hundreds of kurgans and are accumulations of diverse burial monuments. A characteristic feature of the Tagar burial tradition is that the dead were buried in square or rectangular fences made of vertically standing stone slabs. Occasionally the stones were arranged in horizontal rows with vertical stones set at the corners of fences and along their perimeters (Fig. 1).

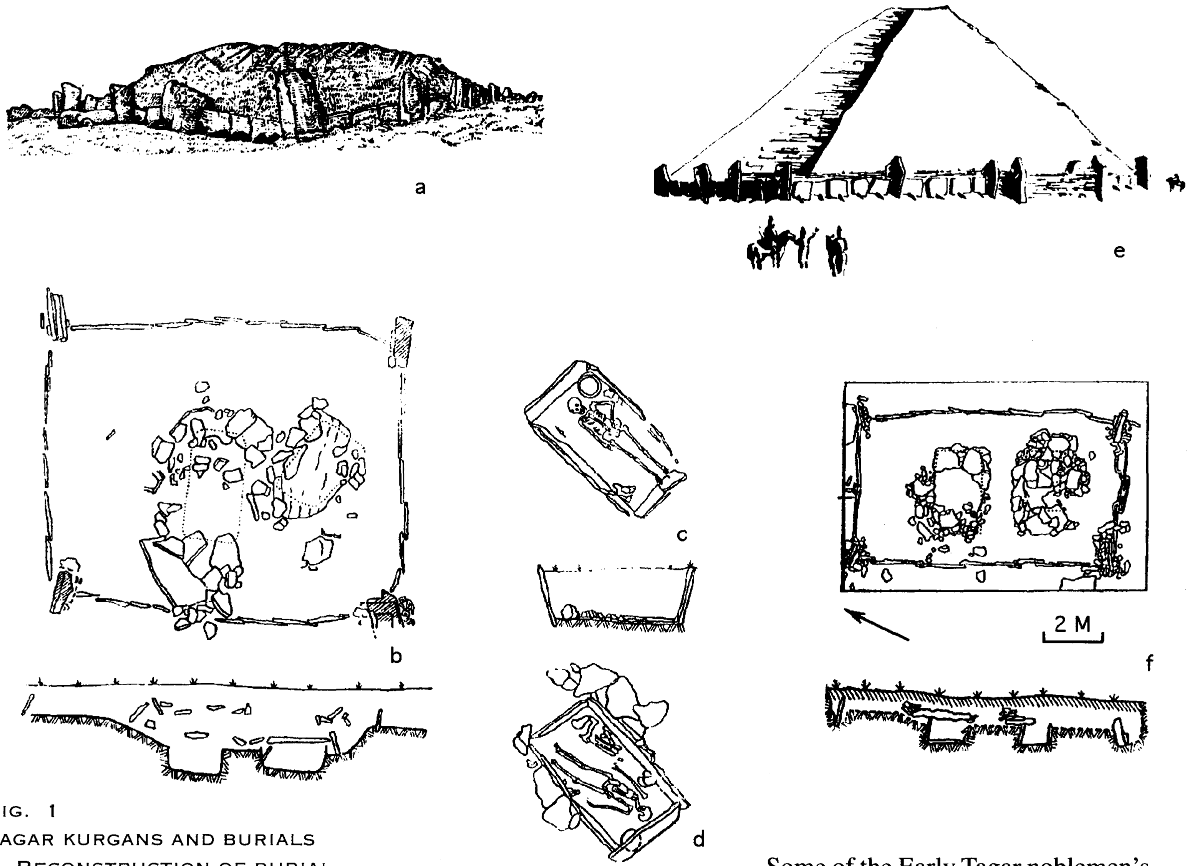


FIG. 1
TAGAR KURGANS AND BURIALS
E. RECONSTRUCTION OF BURIAL CEREMONY

Some of the Early Tagar noblemen's kurgans measure up to 4 m in height. The surrounding fences were up to 30 m long on each side and had 10 to 13 stelae around the kurgan (Gryaznov, 1968, p. 190; Vadetskaya, 1986, p. 80). Fences of the early Tagar Period dating from the 8th to the 6th centuries B.C. are similar in size and proportion to those of the Late Bronze Age. The former do not always have high corner stelae although they may reach a height of 1 m. Fences were often attached to each other. Their slabs were reinforced with abutments composed of up to 8 vertical stones standing at each corner (Fig. 1 c-d; Fig. 2). Inside a fence there is usually 1 or 2 graves, the second being a later addition. Rich graves have roomy timber frames with stout ceilings. The main type of burial structure is represented by a stone box with 1 or very rarely 2 bodies within. A general trend in the Tagar burial tradition was that the graves increased in size and depth. The same process occurs with the fences. The stone boxes were gradually replaced with timber frames which had strong multi-layered floors. The number of people buried in each stone box also increases. In the early period the dead were buried supine with their heads consistently oriented to the southwest with only an occasional northeast orientation. In the case of the collective graves the orientation varied.

In the male graves 1 or 2 vessels with liquid food were usually set at the head and some pieces of beef or more rarely mutton or horse meat were left at the feet. In a male burial a dagger and a fighting axe were usually placed adjacent to the body, a knife on the left side of the belt, and a

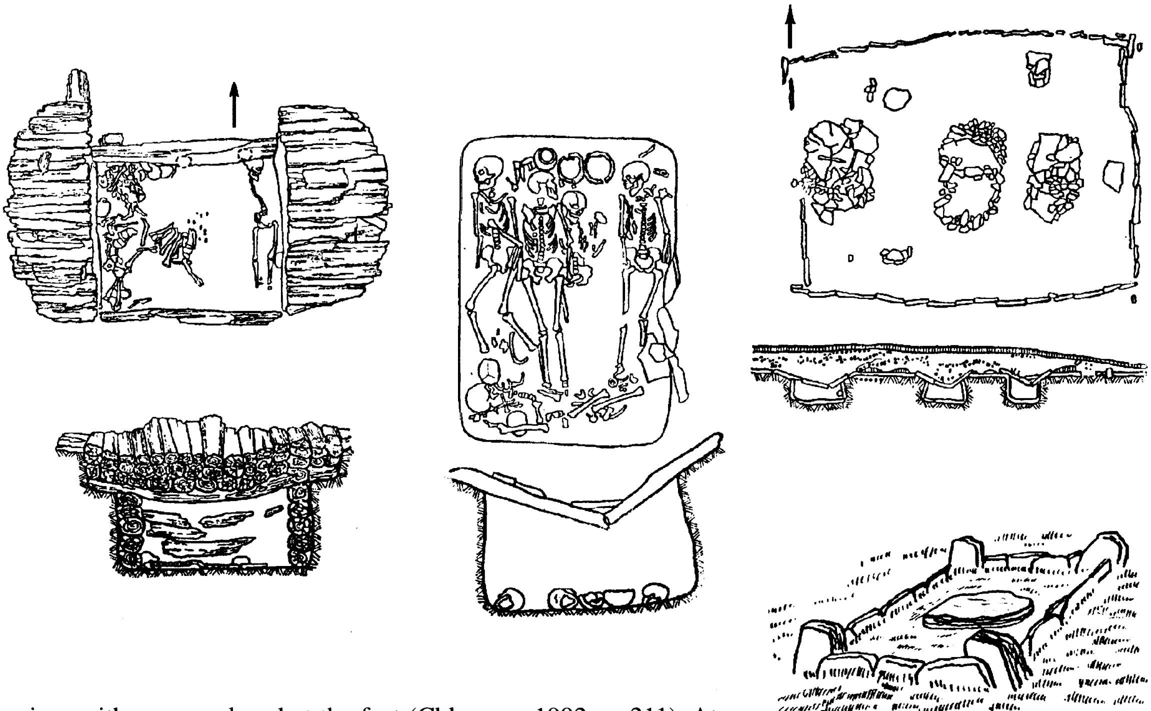


FIG. 2
TAGAR BURIALS

quiver with arrows placed at the feet (Chlenova, 1992, p. 211). Attached to women's belts were either a knife or small bag with toilet articles which included a mirror and a comb. Womens clothes were decorated with numerous beads and pendants. Complex sets of beads also decorated clothing, headdresses, and the hair of the deceased.

The next stage of Tagar Culture saw the further development of the burial ceremonies and of the construction of the burial superstructures. The fences now were composed of 8 to 20 stones. The area within the fences covered 200 to 300 m^2 and housed 2 or more semi-square collective graves. Side by side within the vaults up to 200 members of one clan were buried in succession through a special entrance. Individual graves were built for the richest men and women. Children were buried either in small stone boxes separately or in collective graves together with the women. Accompanying artifacts are approximately the same as at the earlier stage except that the pottery, tools and armament display some change in form. The general trend was to decrease the size to miniaturization. At the same time numerous bronze and gold plaques in the shape of stags which were sewn on the clothing of the dead appeared.

Dated to the this period are the huge kurgans measuring up to 20 m high located in the Salbykskaya Valley, 60 km north of Abakan. The Bolshoi Salbykskii Kurgan excavated by S.V. Kiselyo had a pyramidal embankment 11 m high. The fence was constructed from immense stone slabs placed vertically. The slabs weighed up to 50 tons each and measured between 3 and 6 m high (Fig. 1 a-b). The stone slabs had been transported from a distance of between 20 and 70 km. The length of each side of the fence was 70 m. An entrance made of vertically set stone slabs was placed on the eastern side. The square grave, measuring 5 x 5 x 1.8 m in depth had been completely robbed but the remains of 7 skeletons, some fragments of gold foil, and a bronze knife had survived. The immensity of the kurgan and the labor expended to construct the stone slab fence indicate that a person of

highest rank, a chieftain of a Tagar tribal union, was buried in Salbykskii Kurgan (Kiselyo, 1951, p. 189; Gryaznov, 1968, p. 191; Vadetskaya, 1986, p. 95).

During the closing stage of the Tagar Culture, probably in connection with the newly developed tradition of building permanent burial vaults, the custom of mummification came to fore. Mummification was necessary to preserve the body of the deceased for a period of time while the burial vault was being completed (Vadetskaya, 1986, p. 85). A series of archaeological sites have provided the information to reconstruct the developmental sequences of mummification. During the initial stage, the deceased were buried in the usual vault. However, the skulls and bones were not always in anatomical order because they had been kept for some time outside of the grave. During the second stage attempts were made to bury the bones in an anatomical position. Because of the lack of knowledge those who buried the skeletons confused the position of the bones. Next the attempt was made to prevent the skeleton from becoming anatomically dislocated by fastening the body together with thin twigs. The twigs were passed through special holes bored into the spine. Twigs also were used to fasten the arms and legs to the torso. The next stage consisted of a complex processing of the head in which an attempt was made to preserve the facial features of the deceased. Special studies to reconstruct the entire sequence of this operation have shown that process of mummification required the following steps:

1. The soft tissue was removed from the skeleton
2. A sculptured head was made from clay preserving the facial features
3. The bones were fastened together to make a dummy 'body'
4. The clay head and 'body' were fastened together
5. The dummy was painted and dressed (Kuzmin, Varlamov, 1988, p. 146-155).

Similar complex operations have been registered in the Altai Mountains and in Tuva.

At a later date a doll, stuffed with grass and dressed in clothes, was buried instead of the mummy. The leather head was made and a mask was painted on the surface. Inside the doll a small bag contained the calcinated bones of the deceased (Kyzlasov, 1979, pp. 93-96).

The material culture of the Tagar Period is extremely versatile with thousands of bronze artifacts of very fine quality placed in the burials. These artifacts testify to a highly developed bronze casting industry stemming from very old traditions.

Armaments are mainly represented by 3 categories, daggers, fighting axes, and arrowheads (Figs. 3-4). Daggers differ in the form of their guards and pommels. They may have guards at right angles to the blade and roller-shaped handles, or antenna-shaped guards and insert-type pommels. Daggers also have butterfly-shaped guards and pommels in a variety of forms such as roller-shaped, ring-shaped, or zoomorphic. By the end of the Tagar Culture the form of the guards had degenerated (Fig. 4g). Iron daggers, new in the repertoire, continued to imitate the bronze daggers forms whch have guards at right angles to the blade. In the 4th-3rd centuries B.C. the daggers became smaller in size and even miniature ones appeared although the shapes remained unchanged.

Fighting axes of different types are quite typical in the Tagar Culture. The earliest of these have a head, are round in section, and contain a polyhedral or mushroom-shaped butt on a long sleeve. As time passed the sleeve became shorter and the butt was often made in the form of an animal figurine such as a goat or a stag (Fig. 4 a, h-k). The common fighting axe also had either a

mushroom-shaped butt, one in the form of the heads of birds of prey, or the figure of a boar. Sometimes the sleeves were decorated with a rather fine depiction of an animal (Chlenova, 1967, Table 8: 10-11). The ferrule used to strengthen the axe shaft was generally simple in form, either conical or faceted, although some were shovel-shaped with zoomorphic themes (Fig. 5).

Arrowheads vary greatly in form (Fig. 3 a-c). Numerically they are inferior to those found in the kurgans of Tuva and Kazakhstan where the quivers of the dead contain dozens and even hundreds of pieces. The earliest dated arrowheads have two blades on a hollow shaft often with a tenon (Fig. 3 a-d). The later arrowheads dating to the 6th-4th centuries B.C. are tetrahedral or trilobed, and stemmed (Fig. 3 f-o). Variations in form are achieved through modifying the shape of the fins and the impact point of the arrowhead. Classification of arrowheads has been elaborated in much detail (Chlenova, 1967, Table 12: 12). Bone arrowheads are trilobed or tetrahedral and occasionally bullet-shaped but generally of the simpler standard forms which were well developed during the Neolithic and the Bronze Age (Kulemzin, 1976). Of much interest are the finger tip guards used for protection so that the bow could be drawn very tightly (Fig. 3 r-s). Quiver hooks are also standard in form. In some instances a tendency to interpret them artistically was achieved by twisting the metal or by depicting the hook as a bird's beak (Fig. 3 p-q).

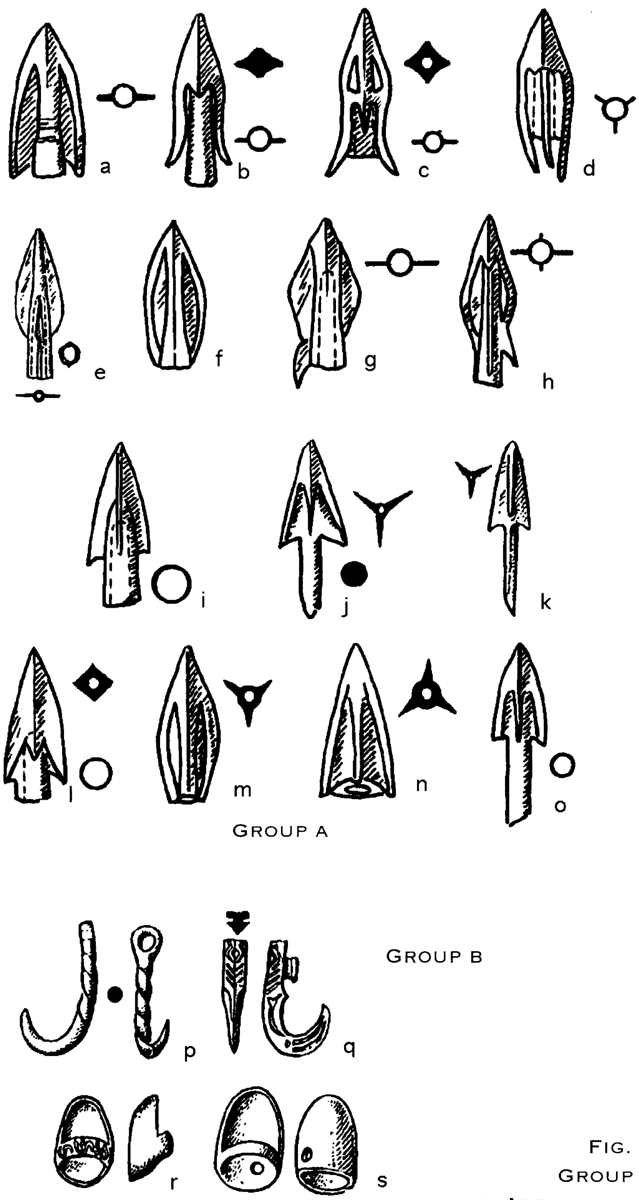


FIG. 3
GROUP A
A-O. ARROWHEADS
GROUP B
P-Q. QUIVER HOOKS
R-S. ARCHERY FINGER GUARDS

Labor implements are very numerous and versatile. Knives alone number a few thousand. The study of their typology is work for the future. The blades of practically all Tagar knives are the same. Differences are manifest mainly in the shape of their handles. The handles may be ring-shaped, with an arch, with small or large holes, open-work, loop-shaped, insert-type, have zoomorphic forms, and be decorated with various incised motifs (Fig. 6). For decorative purposes the knives were tinned and a geometrical design was incised at the top of the grip. The form of the awl was tetrahedral and only the shape of the head differs. Heads on the earliest awls are nail-shaped while the later dated awls are double-headed (Fig. 7). Whetstones are elongated, rectangular or trapezoid. Rectangular celts with two eye-loops to fasten the blade to the handle were used for wood-working with much success (Fig. 8).

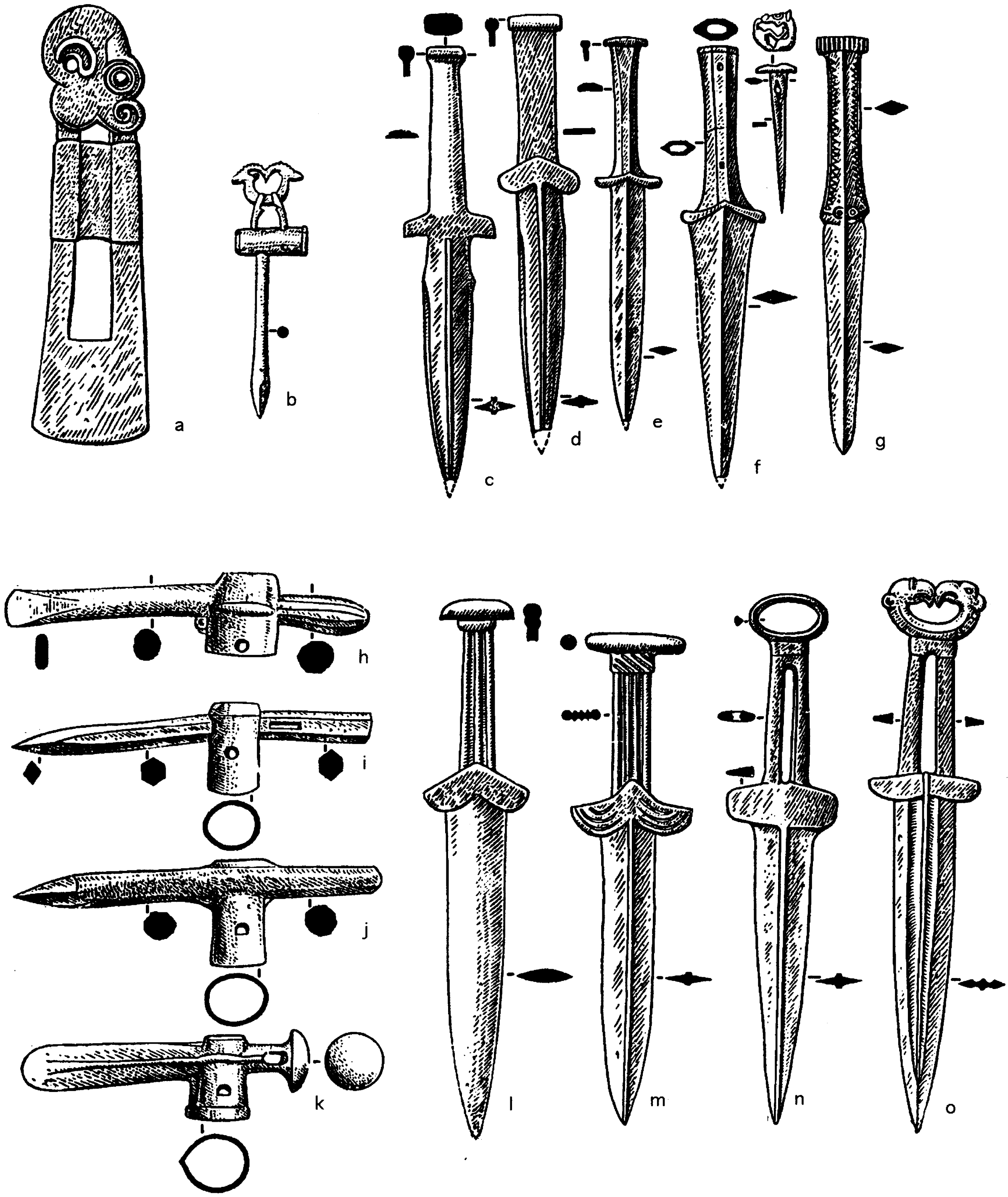


Fig. 4
Tagar daggers and battle-axes

Other quite unique implements included adzes and the long plate saw with a sleeve to receive a handle (Fig. 9). Sickles are slightly curved (Fig. 10). As this implement is technologically imperfect, this may indicate that this culture was agriculturally undeveloped (Levashova, 1956 p. 65). Judging by the diversity of the owners' brands, cattle breeding was specialized. The brand marks differed mainly in the type of frame design.

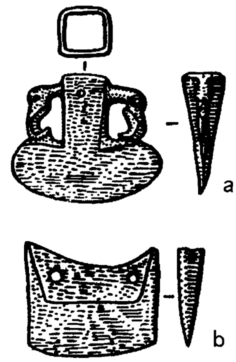


FIG. 5
A-B. FIGHTING AXES

Artifacts related to the bronze casting industry are represented mainly by stone bi-valve, clay, and bronze molds (Grishin, 1960, p. 145). Numerous devices such as clamps, nozzles, and pouring gates used in casting as well as technologically complex and highly artistic bronze artifacts such as bridles, cauldrons and art works emphasize a highly specialized and developed bronze industry. Ore may have been mined from the numerous copper, tin, and gold open mines which have been found in the southern Krasnoyarsk district.

Horse harness items are extremely numerous. Although almost all are accidental finds their diversity and the high quality of production point to the great value that the Tagar society placed on this category of objects. As a result of careful studies it has been possible to ascertain tendencies in the development of bridles and psalia. Around 8th century B.C. the three-holed bridle bit, carved from horn and used at an earlier date, was replaced by bronze bridle bits. These bits were cast with a stirrup-shaped end and an additional hole (Fig. 11) into which were inserted the strict frame-shaped psalia (Fig. 11). These were used to break horses. In the 6th-5th centuries B.C. stirrup-shaped bits were replaced with those that had a single ring into which the two-holed psalia was inserted (Chlenova, 1992, p. 215; Bokovenko, 1986, p. 18). The total bridle system including the various strap connecting pieces, pendants, and cheekpieces continued to develop (Fig. 12). The abundance and diversity of horse harness items (Fig. 13) and the numerous petroglyphs illustrating the horse theme are evidence of the great role that horse breeding played in the Tagar society.

Vessels were made of clay, carved from wood, or were cast from bronze. Pottery comes mainly from burial complexes and is rather standard in form. The predominant types are pot-shaped vessels with minimal ornamentations which can be in the form of parallel flutes, incised lines, and zigzags (Fig. 14). At the end of the Tagar Period vessels with ring-shaped bases, and cauldron-shaped vessels were predominant. Vessels in the form of jars also appeared. The color of the pottery was dependent upon the firing methods. The predominance of grayish-yellow shades indicates that the vessels were unevenly fired in an open fire without a special oxygen supply. As wooden vessels withstand time poorly these containers are found only rarely. In some burnt chambers researchers have recorded great quantities of charred wood and birch bark artifacts. These include small tables, round, ellipsoid, and square wooden trays, (Fig. 15), cauldron-shaped vessels, and scoops (Fig. 16). All of these items were probably very popular among the cattle breeders of southern Siberia (Kurochkin, 1988, Fig. 14; Bokovenko, Krasnienko, 1988, Fig. 10-11). A great number of bronze-cast cauldrons on conical bases (Fig. 17) have been found also in the Minusinsk Basin. They vary in size from small, containing up to 5 liters in capacity, to extremely large ones which have a capacity of several hundred liters. On the exterior surface the cauldrons usually have an ornamentation in the form of a string. Their handles differ in configuration from ring-shaped, horse shoe- and loop-shaped, with or without mushroom-shaped branch pieces, to zoomorphic forms. Classification of the cauldrons is based on the typology of the handle (Bokovenko, 1981, pp. 42-52). The earliest of the

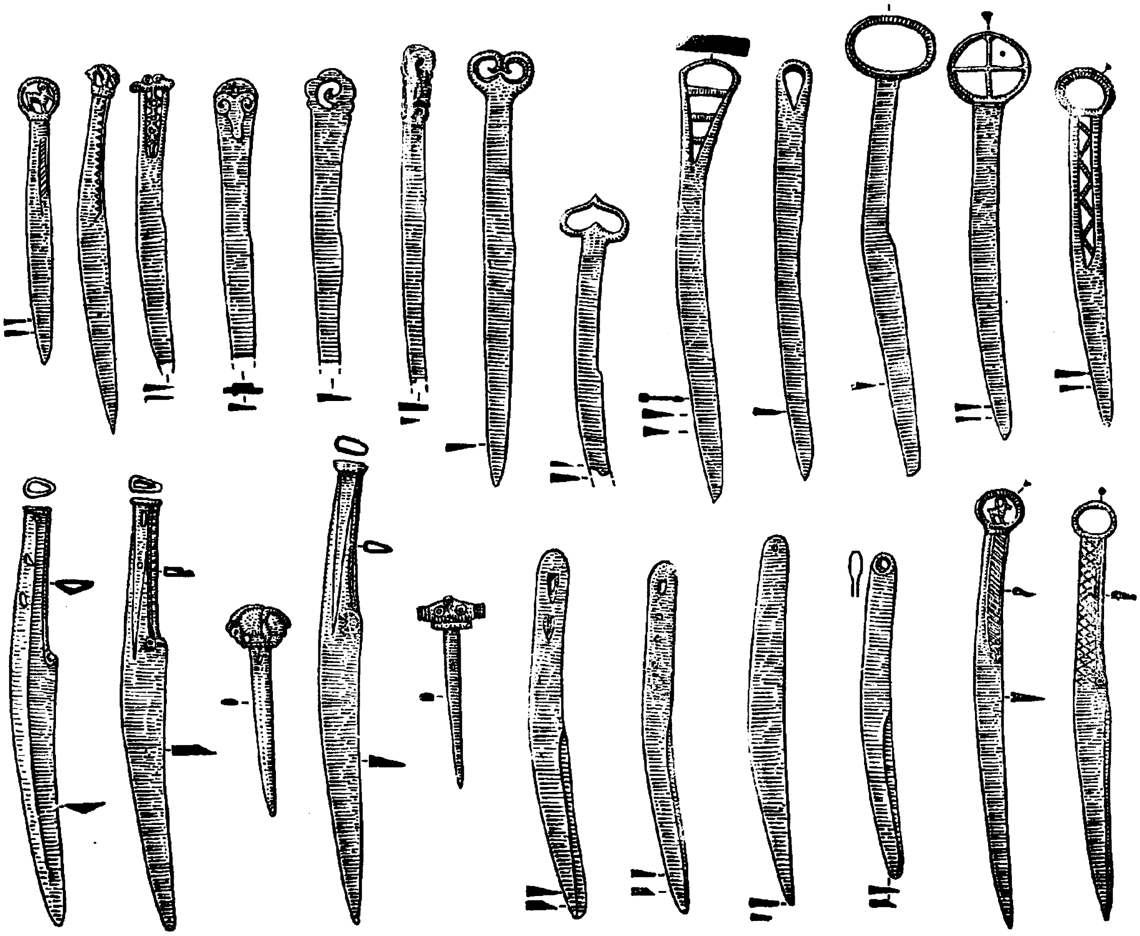


FIG. 6
TAGAR CULTURE KNIVES

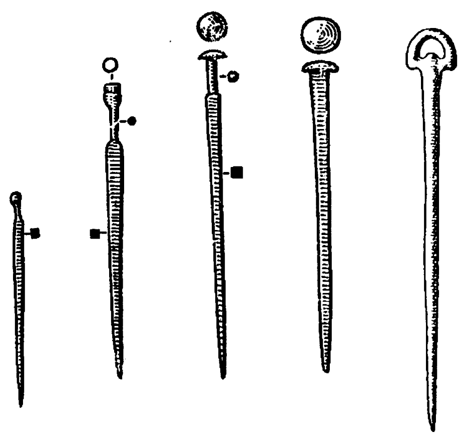


FIG. 7
AWLS

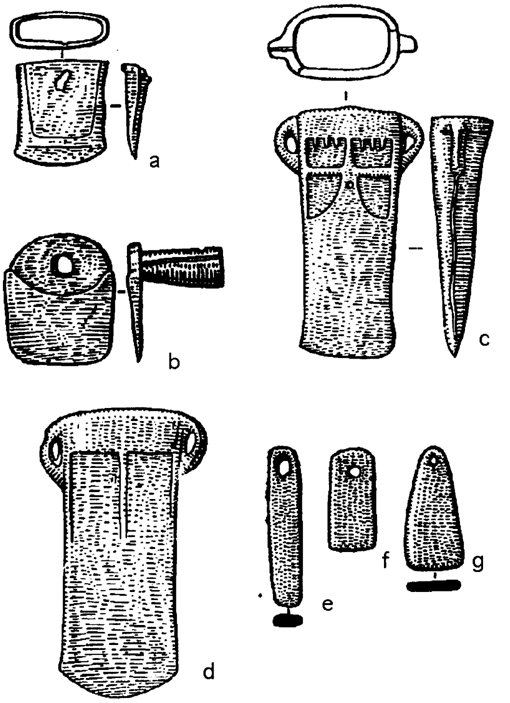


Fig. 8
A-D. Celts
E-G. Whetstones

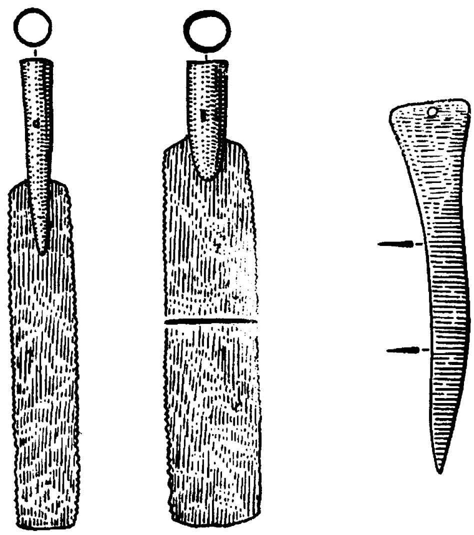


Fig. 9
Long plate saws

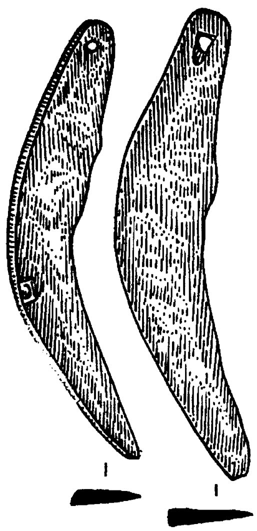


Fig. 10
Sickles

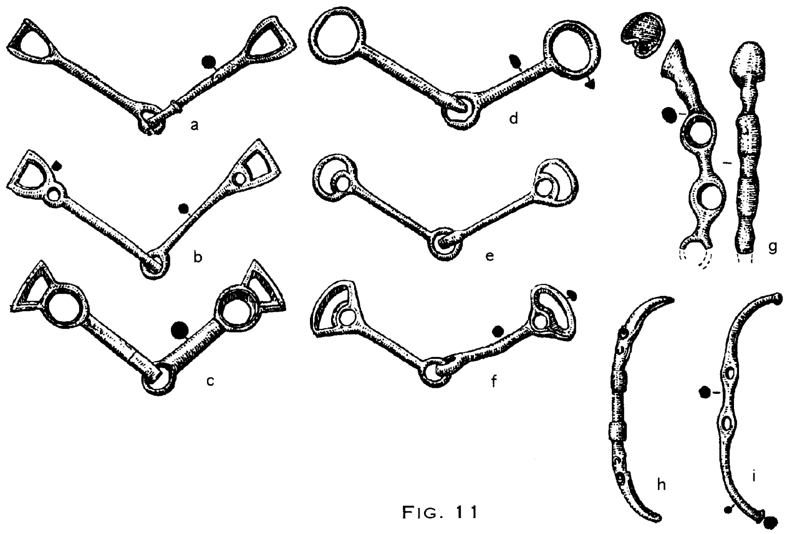


Fig. 11
A-F. Bridle Bits
G-I. Psalia

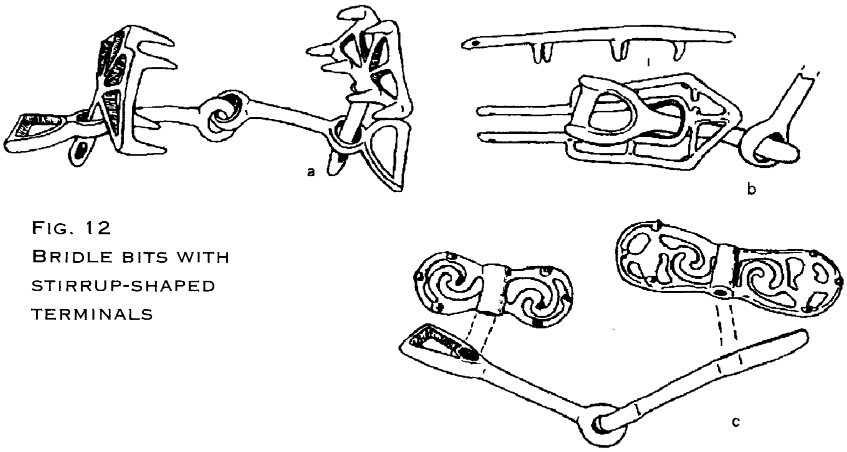


FIG. 12
BRIDLE BITS WITH STIRRUP-SHAPED TERMINALS

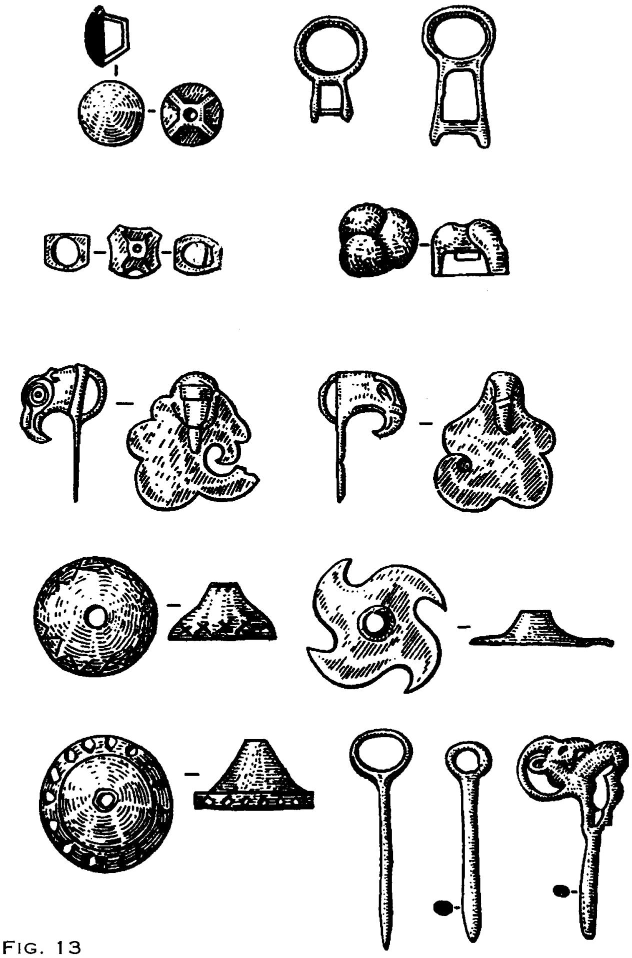


FIG. 13
ELEMENTS FROM HORSE HARNESSES

cauldrons had ring-shaped handles while the later ones were loop-shaped. Herodotus mentions cauldrons in connection with sacrifices (Herodotus, IV, 60, 61). The containers were probably poly-functional among the nomads.

Toilet articles were stored either in small leather bags or in wooden chests. Numerous carved and figured combs made of bone are known. Some wooden combs have survived in the Dalnii Kurgan (Fig. 18). A particularly interesting comb used for combing hair is decorated with a compass ornament and a zoomorphic figure on one of the ends. Bronze awls and beads from glass, carnelian, and paste are typical finds. The latter group were frequently made into necklaces. Headdresses and the clothing worn by the deceased were decorated with semi-spherical bronze plaques sometimes covered with golden foil. Breast plates, diadems, and pendants with zoomorphic heads were other ornaments included in the burial (Fig. 19).

Mirrors of three types were used. One type had a rim around the edge, the second was disc-shaped manufactured in different sizes, and the third had a side handle often decorated with a beautiful animal figurine (Fig. 20).

Artifacts made in the animal style are widely represented in the Yenisei River region. Miniature sculptures are in the form of numerous and diverse animals including deer, feline beasts of prey, goats, griffins, horses, and boars. The animal style art is represented with engravings, in cast bas relief figures, and in three-dimensional hollow sculptures (Figs. 21-22). All are of a fine technological level indicating the high aesthetic development found in the Tagar Culture (Zavitukhina, 1983, p. 35).

Petroglyphs of the Scythian Period are found practically on all the rocks and stones

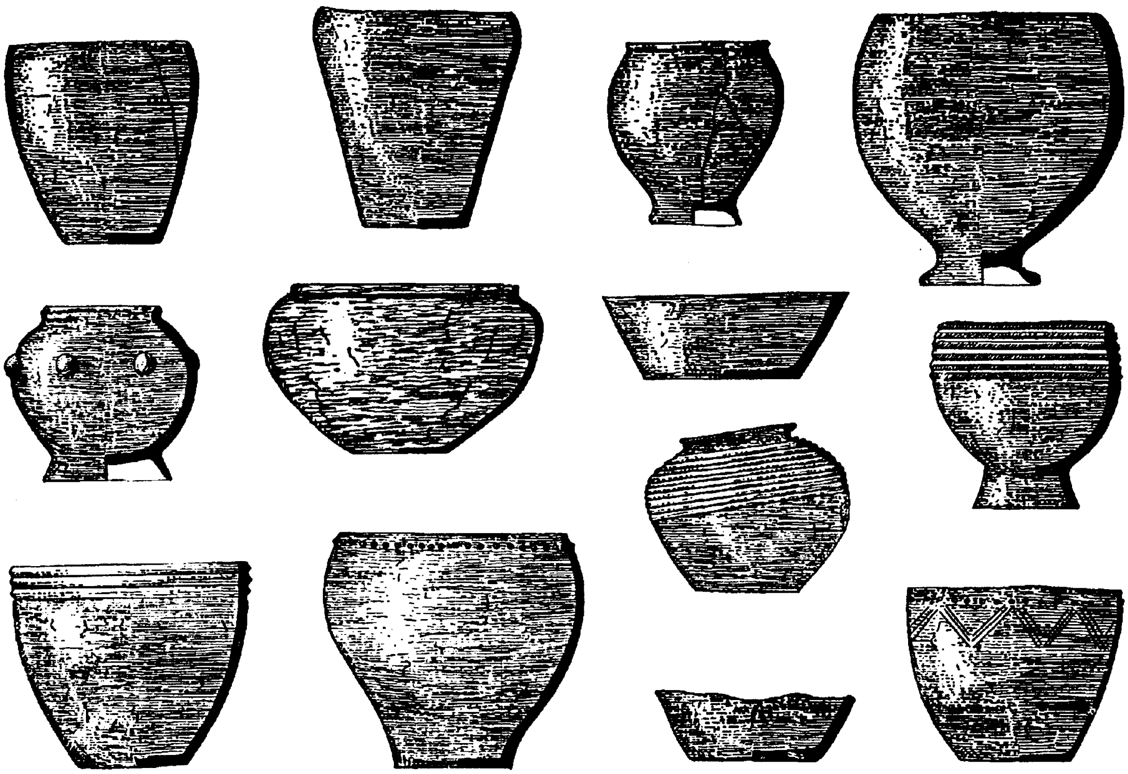


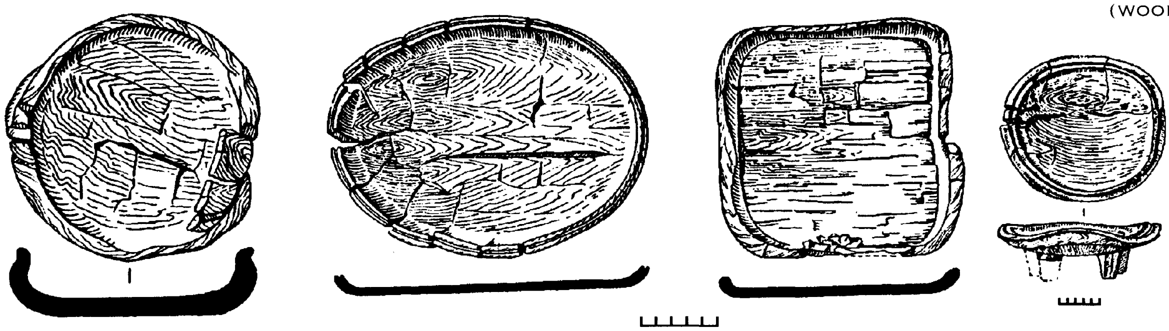
FIG. 14
CERAMIC VESSELS
TAGAR CULTURE

which form the Tagar kurgan fences. The motifs depict either single themes or complex compositions which include scenes from everyday life, rituals, and hunting (Fig. 23).

On the whole, the works of art from the Minusinsk Basin provide convincing evidence that most often the content and mode of their execution was superior to those artistic traits and complex semantic contents found in the arts of neighboring areas.

Notwithstanding the regional differences,the material presented above marks the cultural and historic unity of the southern Siberian peoples during the Scythian Period. This is especially true during the formative stage of the early nomadic culture. An analysis of the

FIG. 15
TRAYS AND TABLES
(WOOD)



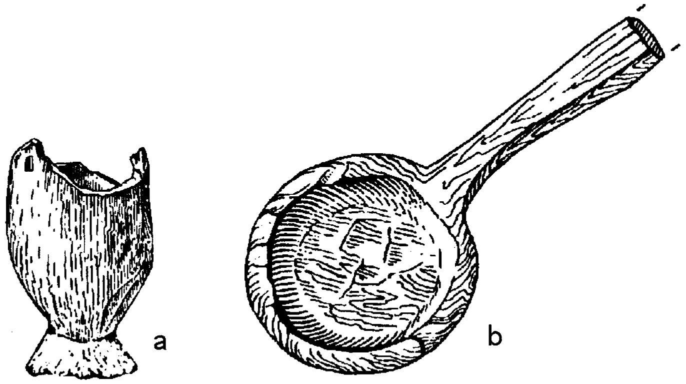


FIG. 16
A. CAULDRON-SHAPED VESSEL
B. SPOON
(WOOD)

entire complex of the "Tsar's" kurgan at Arzhan in Tuva has made it possible to define a number of important formative processes in the Scythian-type cultures of Central Asia. First, the complex and rich burial tradition, with its numerous human and horse graves, presupposes the existence of a latent formative period. This latent period can be tentatively dated to the 10th-9th centuries B.C. or to the pre-Arzhan Period. It probably was characteristic at that time that both men and horses were buried on the ancient ground surface together with weapons and harness of a type that predates those of Arzhan Pe-

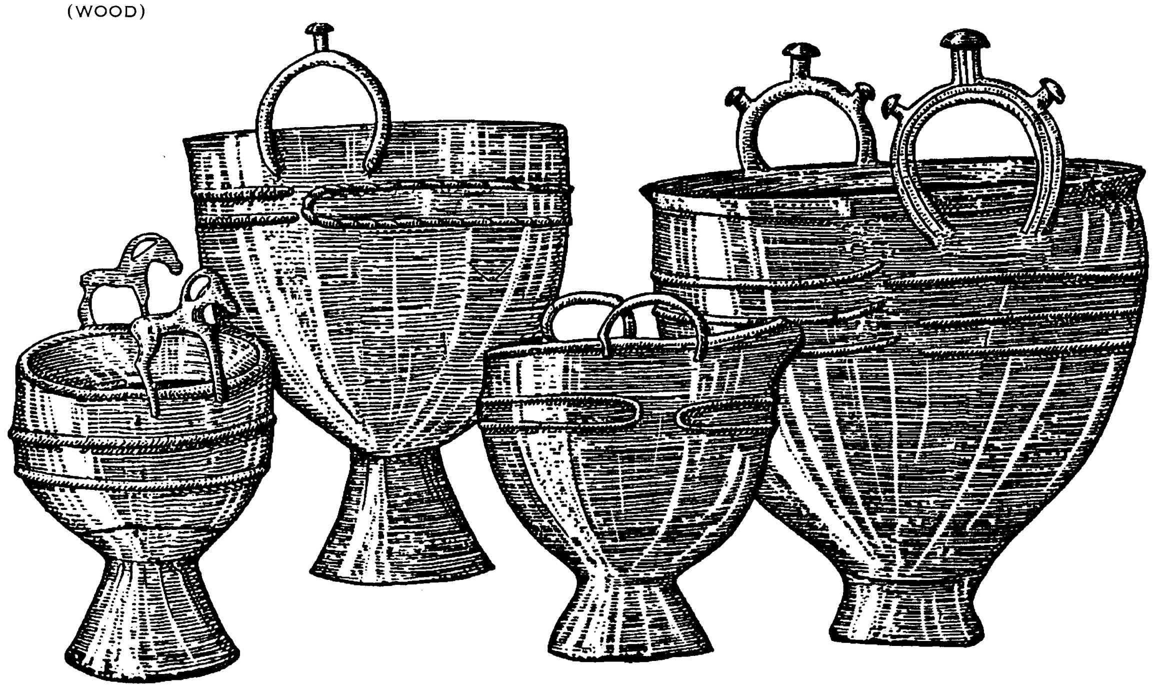


FIG. 17
CAULDRONS (BRONZE)
MINUSINSK BASIN

riod. To be included in the latent period are *olenniye kamni* which have depictions of Karasuk-type daggers. The ancient ground surface burials are easily destroyed by ploughing and, therefore, are practically unknown. Their accompanying artifacts have been included in the category of accidental finds.

Second, the Arzhan materials point to the consolidation and cultural unity of the Sayan-Altai tribes and the partial consolidation with the the Kazakhstani and Mongolian tribes during the early 8th century B.C. period. The consolidation may have occurred due to their original kinship (L.R. Kyzlasov, A.D. Grach, N.A. Bokovenko and others). The powerful union of Saka and

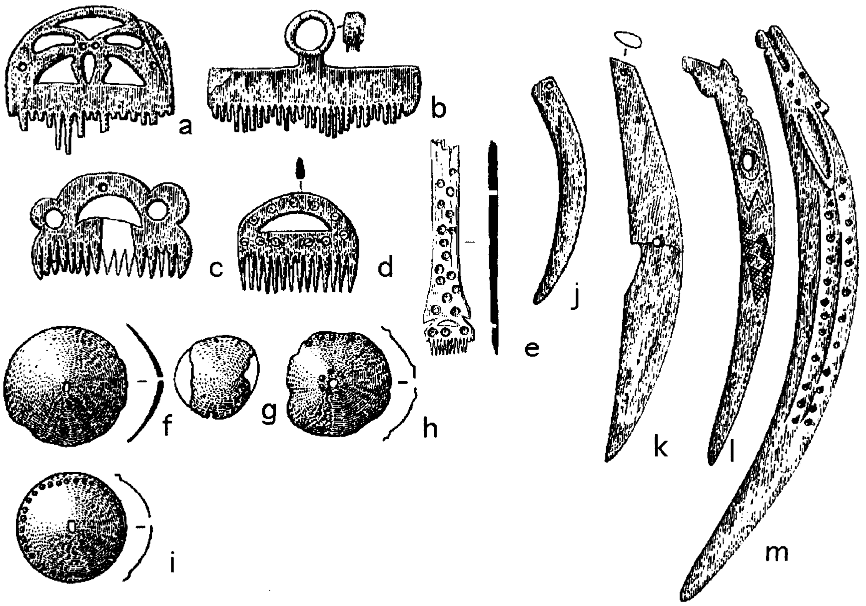


FIG. 18
A-E. COMBS (BONE)
F-I. PLAQUES (BRONZE COVERED WITH GOLD FOIL)
J-M. CARVED BOAR TUSKS

Massagetae tribes can explain the penetration of bellicose nomads from the northeast into the ancient Near East as early as the 8th-7th centuries B.C. (Dyakonov, 1956; Grantovsky, 1970).

In later history nomadic tribes of the Scythian aspect appeared time and again on the historical arena of Asia. There they demonstrated their original and artistically rich culture although over time it suffered considerable modification as a result of the westward expansion of the Huns in the 3rd and 2nd centuries B.C.

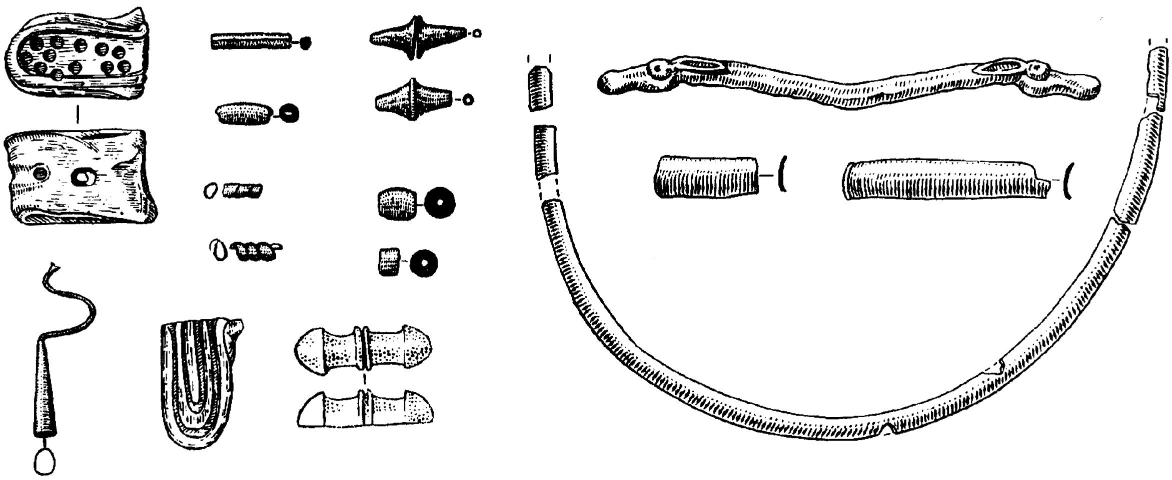


FIG. 19
PERSONAL ORNAMENTS

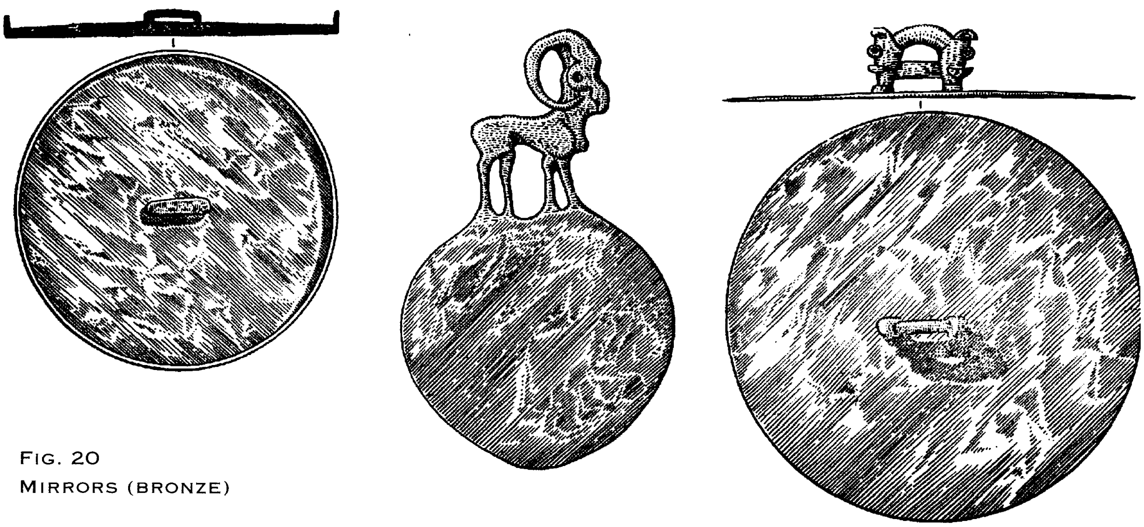


FIG. 20
MIRRORS (BRONZE)

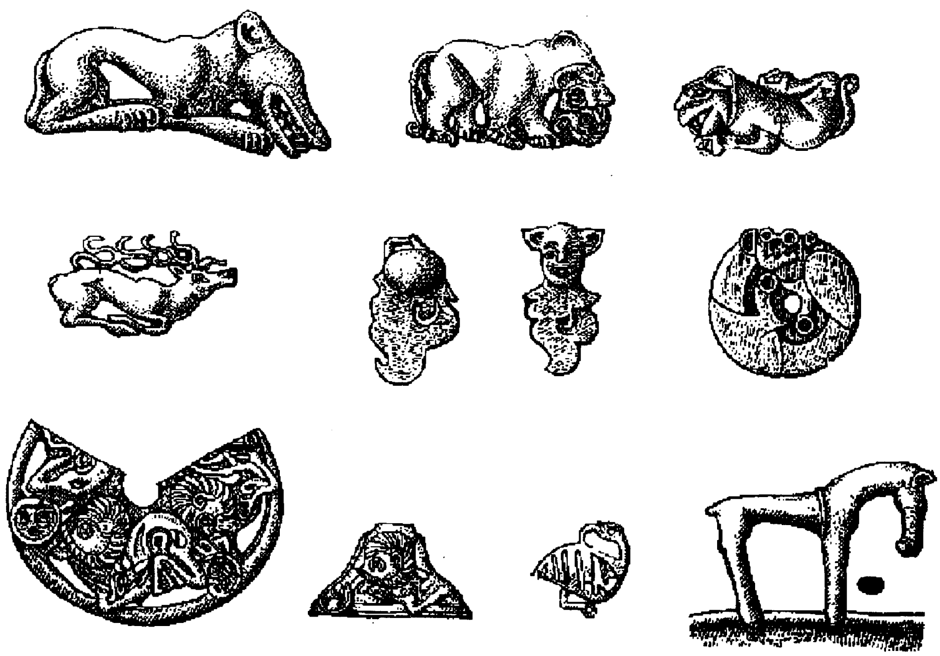


FIG. 21
PLAQUES AND THREE-DIMENSIONAL
OBJECTS
ANIMAL STYLE
MINUSINSK BASIN

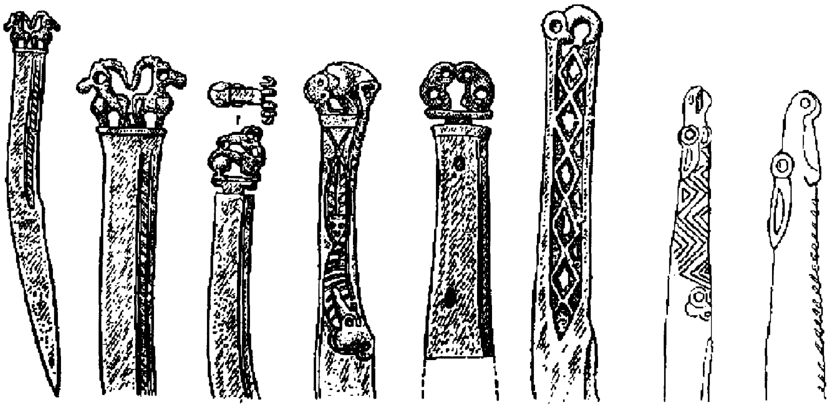


FIG. 22
KNIVES WITH ZOOMORPHIC POMMELS
MINUSINSK BASIN

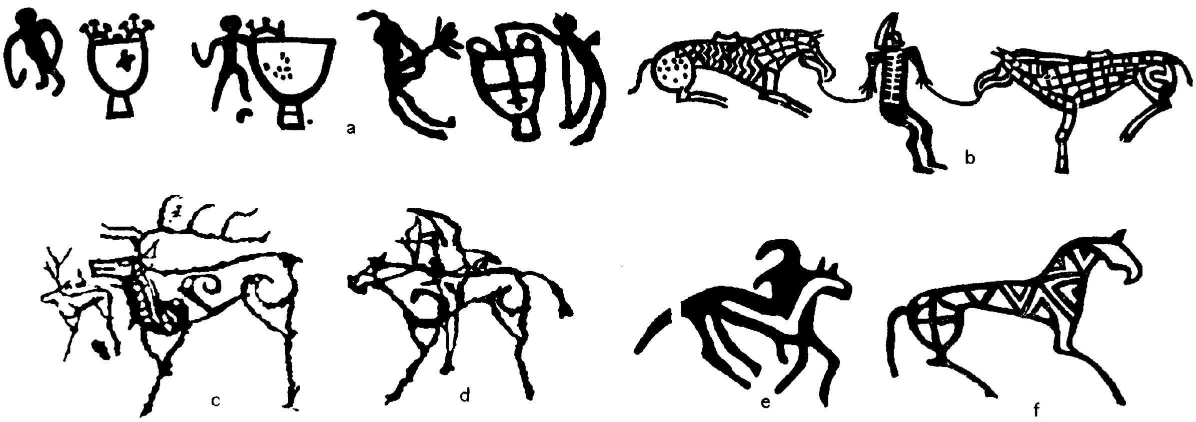


FIG. 23
PETROGLYPHS
TAGAR CULTURE

Notes

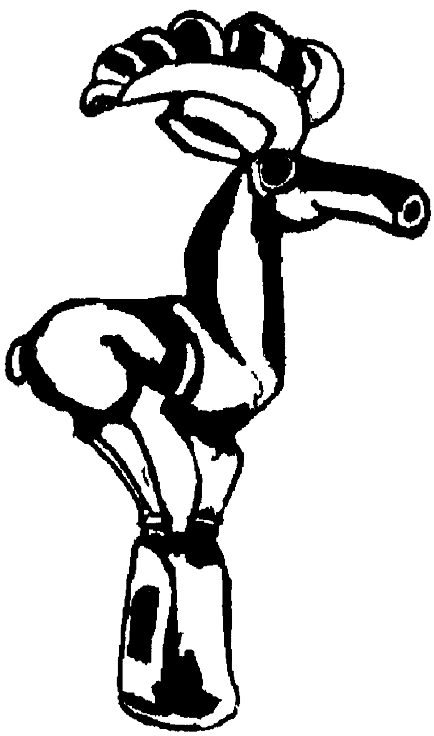
Chapter 19

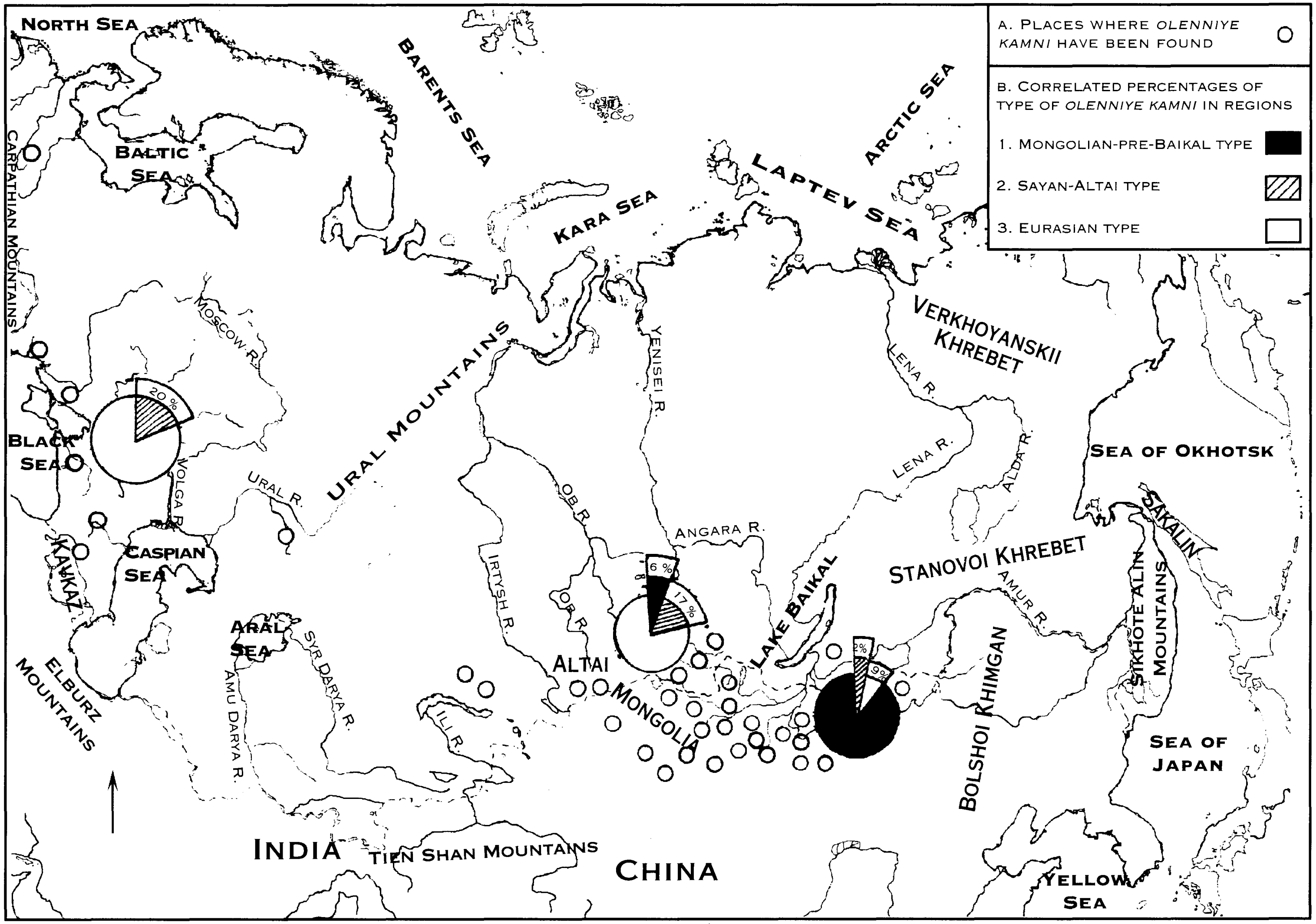
The Tagar Culture in the Minusinsk Basin

1. Known in the Russian language as the Tagarskaya Culture. (Ed. note)
2. Known in the Russian language as the Karasukskaya Culture. (Ed. note)

PART V

EARLY NOMADS OF MONGOLIA





VOLKOV

MAP 19. MAP OF SITES WHERE *OLENNIYE KAMNI* (DEER STONES) HAVE BEEN FOUND IN THE EURASIAN STEPPES

CHAPTER 20

EARLY NOMADS OF MONGOLIA

VITALI V. VOLKOV

The area today known as Mongolia,[1] is a large Central Asian[2] region bordered directly on the Gorny Altai region,[3] Tuva,[4] and the former Soviet Transbaikalia.[5] The geography of Mongolia is historically and culturally similar to these regions. Because Mongolia is situated at the center of the mainland Asia, this region has several natural features which, to a large extent, are responsible for the historical development of the population as well as the role the territory has played in conjunction with other Central Asian regions in world history.

Mongolia is a vast country covering 1.5 km^2, an area equal to that of France, Holland, and Belgium. The changing geographical zones are punctuated by continuous mountainous chains which cover a large portion of the country. The powerful Mongolian Altai Mountains lie in the western area while in the north central Mongolian region the Hangai mountainous ridges meet the eastern Sayan Mountains. The forested Hentei Mountains are located in the northeastern area of Mongolia. Boundless steppes are a characteristic feature of eastern Mongolia. The northern Gobi Desert covers the southern part of the country. Although termed a desert the Gobi Desert is a semi-desert, dry steppe land. Forests and alpine taiga cover only about 7.3% of Mongolia. The mountainous forests reach far south, almost touch the dry steppes. In contrast, the semi-deserts and deserts reach not only to high latitudes but also west to the Great Lakes depression where the northernmost dry deserts in the world are found.

One general feature of Mongolia is its high altitude. Even the steppes are between 600 m (1950') and 1500 m (4875') above sea level. The high altitude in combination with the powerful mountainous systems and the remoteness of any modifying ocean explains why regions have an extreme continental climate. Great diurnal and annual temperature variations up to 90° C. (160° F.) occur. The air is dry and precipitation in the majority of the regions is not more than 300 mm (Murzayev, 1952). This severe climate limits any extensive agriculture.

It is not by chance that the history of Mongolia as well as that of other Central Asian regions was dominated by cattle-breeding tribes and nomadic herders. In spite of high altitudes and fluctuating temperatures, the vast steppes and endless pastures of the highland valleys offered favorable conditions for the early emergence and successful development of a cattle breeding economy. The interaction of the nomads with agriculturists living to the east and west contributed to the cultural development. Nomadism determined in ancient times as it still does today the specific features of

everyday life. The antiquities of Mongolia and the ethnography of its peoples could well serve as a standard to resolve questions concerning the history and culture of the nomadic world.

The earliest data concerning the economy of Mongolian cattle breeding dates from the Late Neolithic and Eneolithic Periods. The transition to a cattle raising economy is documented at a Late Neolithic camping site which also had permanent dugout dwellings. At this camp located in the vicinity of Tamtsag-bulak in eastern Mongolia bones of domesticated animals were found (Dorzh, 1971). At Eneolithic camping sites along the Selenga River in northern Mongolia bones of domesticated sheep and cows have been found. In the late 3rd to early 2nd millennium B.C. the Afanasievo Culture[6] emerged in northern Mongolia. The Afanasievo Culture had a cattle breeding economy mainly known from the kurgan cemeteries in the Minusinsk Basin[7] and in the Gorny Altai region. Sites in both areas have been studied extensively. In Mongolia, Afanasievo cemeteries have been discovered on both the western and eastern slopes of the Hangai Mountains in the vicinity of Altan Sandal (Gold Chair) and Shatar Chuluu (Stone Chest). On the surface, the burials are marked by large, flat stones and/or earth laid out in a circular pattern on the surface of the ground. The dead were buried in rectangular or oval grave pits, in supine positions with their legs contracted. A characteristic burial rite involved covering the body with ocher. When excavated the skeletons are now a brownish-red.

Funeral artifacts include ceramic vessels which are generally egg-shaped. In the Altai Mountains and in Mongolia the pots have high, straight necks. The decorative herringbone motif is the most typical design and usually completely covers the sides of the vessels. Stone implements such as pestles and leaf-shaped arrowheads predominate. A few metal artifacts such as rings made from copper wire and leaf-shaped knive blades have been recovered.

Numerous bones of wild animals including fox, roe deer, and boar as well as residual fish scales indicate the importance of hunting and fishing to the population. Bones of domesticated sheep, cattle, and horses also reveal that developed cattle breeding may have been the principal economy of the Afanasievo peoples.

The Afanasievo cultural ties were primarily with the west. Censer bowls found in Afanasievo burials are completely analogous with those from the southern Russian Catacomb burials. According to physical anthropologists the Afanasievo population was Paleo-European, descending from the Cro-Magnon people of Paleolithic Europe. It appears that the carriers of the Mongolian Afanasievo Culture were the easternmost Europoid tribes which populated Inner Asia at the dawn of the Bronze Age.

Although data is minimal, it is possible to conjecture that the 3rd millennium B.C. economy of Mongolia was developed on a complex basis influenced by geographic and climatic conditions. In the north and northwest the basis of the economy was a combination of hunting and cattle breeding while in eastern Mongolia the economy was probably based on agriculture and cattle breeding. These conjectures are supported by analogous material. After researchers studied the 3rd millennium B.C. sites in the lower Volga River region and areas of Kazakhstan they concluded that by the Early Bronze Age cattle-breeding had obtained a nomadic character. Based on this information it seems probable that in the arid zones of Central Asia, including those of Mongolia, cattle breeding would have existed only in a nomadic form.

The more developed late Bronze Age is represented primarily by various chance finds of bronze artifacts now housed in the Mongolian Central State Museum located in Ulan Bator, the capitol of Mongolia. Finds are also housed in several provincial and district[8] museums. Axes and

celts of the Seima-Turbino type have been found. A large series of bronze knives, daggers, arrowheads and various decorative elements with close affinities to the artifacts of the Karasuk Culture of Southern Siberia and to the Chou bronzes of China have been excavated.

Particularly impressive are massive bronze knives with ring- or mushroom-shaped finials. The backs of the blades are concave. Daggers with pommels in the form of a modeled mountain goat head and typical Karasuk daggers with hollow handles and mushroom-shaped finials have also been found. The blades of these weapons are more than 50 cm in length and, therefore, could also be classified as swords (Fig. 1 a, g).

Although Soviet researchers and their colleagues abroad have studied the relationship between Central Asian Chinese artifacts and the motifs found on the Karasuk bronzes, the origins of the latter culture is still debatable. Definitely the Karasuk Culture arrived in the Minusinsk Basin from an unknown locale. Judging from the iconography the abundant and diverse Karasuk-type artifacts found in the Ordos Desert, Transbaikalia, and Mongolia indicate that movement was from the south to the north entering Siberia from the Central Asian steppes.

The history of Central Asia during the Late Bronze and Early Iron Age is usually identified as the Period of Early Nomads. It was at that time in Mongolia, as well as in the majority of the other Eurasian steppes, nomadic pastoralism with its many technological achievements reached its zenith. The perfection of the means of transport, the extensive use of the saddle horse, and more importantly, mobility dictated by economic needs, increased the dynamic contact. These contacts were expanded within local tribal groups as well as with populations from more distant territories. During this time the expressive nomadic art objects took on their final shapes.

In Mongolia, the Slab Grave Culture is one of the principal Early Iron Age cultures. With the exception of numerous bronze artifacts which were chance finds (Fig. 2) and petroglyphs, this cultural group is represented by its burial complexes. Vertically placed flat stone slabs, from which the name Slab Grave Culture is derived, mark the surface of each grave. The earliest typical group of slab graves in northern Mongolia are sub-rectangular in shape, have concave walls, and are termed "figured." Burial rituals were uniform. The dead were placed in ground pits or stone boxes in supine position and were oriented to the east. In general the graves have been robbed and now only contain items such as clay vessels decorated before being fired with plastic rolls of clay. Less frequently three-legged vessels, bronze knives, celts, and arrowheads have been found. Frequent finds include various personal adornments such as carnelian and turquoise beads, and semi-spherical bronze bosses that were sewn on the outer garments. Whetstones as well as articles carved from bone and horn also were grave offerings. A grave of the "figure" type excavated in the Tevsh Mountains in the Gobi Desert yielded massive gold Siberian-type fibulae embellished with modeled mountain goat heads and turquoise insets.

Although some may be older, the majority of the Slab Graves date from the 7th-3rd century B.C. This culture appears to have occupied a large part of modern Mongolia, particularly the eastern and central regions. The western border of the Slab Grave Culture follows the depression of the Great Lake. This depression divides Mongolia north and south. Further west in the Gobi-Altai foothills, slab graves are encountered only occasionally. They have not been found in the Russian Gorny Altai region nor in Tuva. Slab burials are found beyond the northern borders of Mongolia in Transbaikalia and a small number have also been located in the Lake Baikal region. In southern Mongolia, slab graves are less frequent although Maringer and Bergman (1955) have recorded a number including several of the "figured burials" in Inner Mongolia. Some burial sites in northern Tibet are also similar to the slab graves burials.

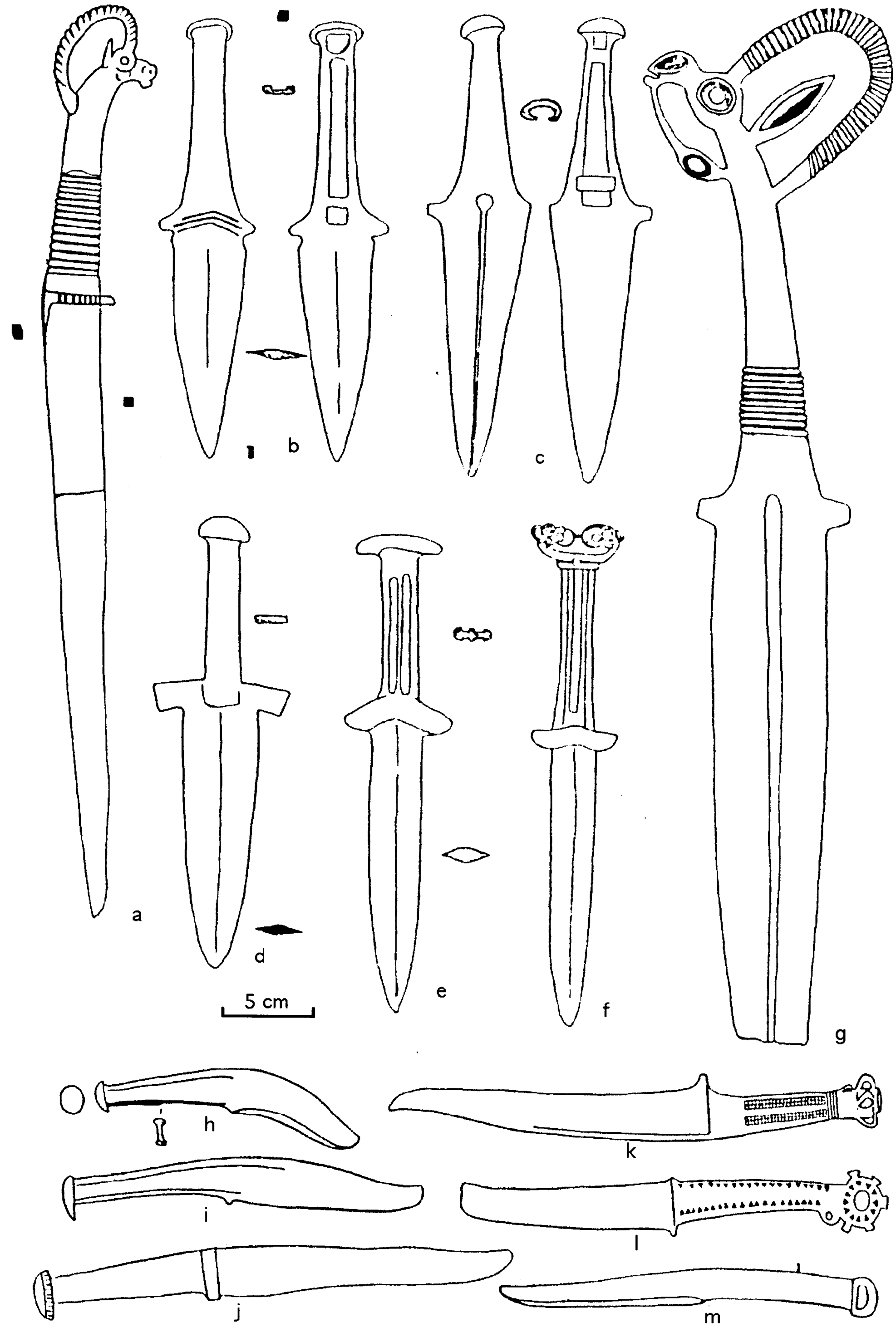


FIG. 1
A, G. SWORDS
B-F, H-M. DAGGERS
(BRONZE)

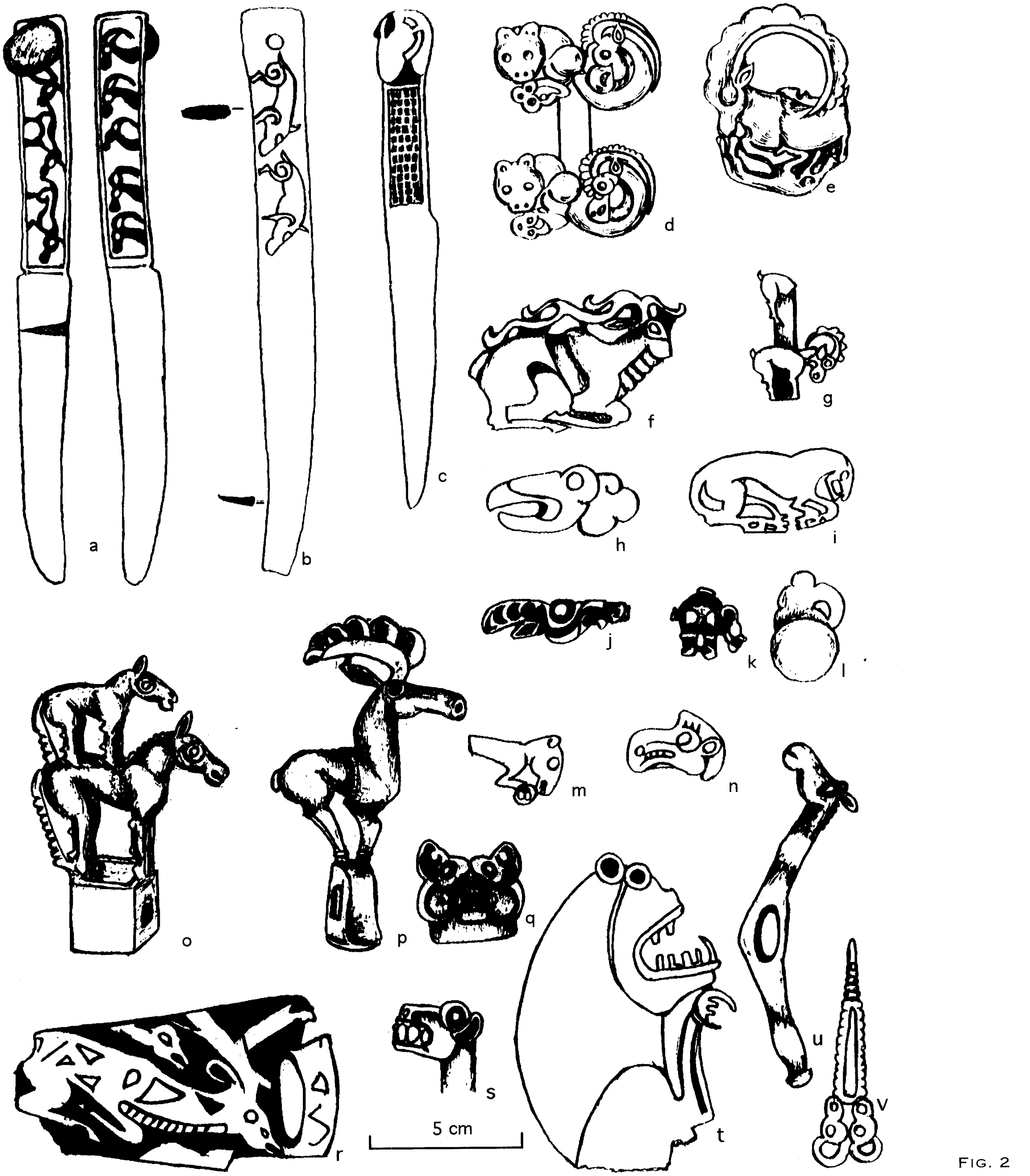


Fig. 2
Chance Finds

For the most part grave good inventory, burial rites, and the anthropological skeletal type associated with the Mongolian Slab Graves are identical to those of Transbaikalia. It would appear that in the 1st millennium B.C. the steppes of central and eastern Mongolia and those of Transbaikalia were a single ethnocultural region (Volkov, 1967).

The Karasuk Culture preceded the Slab Grave Culture. Both cultures covered a vast steppe territory in Central Asia. According to current information from the Slab Grave and the Karasuk Culture sites it appears that many Karasuk traditions survived into the Early Iron Age. The form of some bronze artifacts, the ornamentation, and particularly the bronze casting technology are unique. Because of the similarity of surviving artifacts in both cultures, some researchers believe that part of the slab graves date to the Karasuk Period (Dikov, 1959, p. 23). These scholars also assume that the Slab Grave Culture was formed on the basis of one, or possibly several kindred cultures, and that each shared some common traits with the southern Siberia Karasuk Culture.

During the 1st millennium B.C., or possibly slightly earlier, a specific ethnocultural zone was formed in the northwestern Mongolia region adjacent to the Sayan and the Altai mountains. In this region the burials are similar to those found in stone kurgans located in the vicinity of Pazyryk in the Gorny Altai region, at Uyuk, and in Tuva (Kyzlasov, 1979). In general, Mongolian sites have been poorly studied. Until recently cist-type burials which are similar to those found in neighboring Tuva were the only burials that had been investigated. Although the arrangement of the upright stone slabs placed in relationship to the burials have various forms, the burial rites are essentially the same. A box or a structure similar to a cist constructed of large flat stones was placed in the center of the kurgan on either the ancient ground surface or in a shallow pit. The body was in the cist on its side, legs bent, and head oriented to the west or northwest. Generally no accompanying artifacts are present. Skulls from the cist kurgans are Europoid with a trace of Mongoloidism. The closest parallel are skulls from the Karasuk and Okunevo Culture graves in southern Siberia, those from similar sites in Tuva, and those from the Saka-Usun cemeteries in Kazakhstan and Kyrghyzstan (Alekseyev, 1979, p. 370).

According to Tuvinan scholars, the cist burials date from the from the 7th-6th centuries B.C. This is the Early Period of the Uyuk Culture. Other scholars classify these burials as a special Mungu-Taiga Culture and believe that at least a portion of the burials date to the Karasuk Period. The latter opinion also is supported by stratigraphic observations (Kyzlasov, 1979).

Information concerning cultural traits of northwestern Mongolian populations during the Scythian-Saka-Siberian Period has been considerably enriched by the 1972-1974 Soviet-Mongolian Historical and Cultural Expedition. The expedition excavated a cemetery dating to the 5th-3rd centuries B.C. in the vicinity of Ulangom, capitol of the Uvs *aimag* (state). The Ulangom Cemetery contained a group of timber graves. The burials held stone boxes in which 1 or 2 skeletons had been buried. This cemetery also yielded a long series of pottery types. Some of the pottery is ornamented with black paint. A large collection of bronze and iron artifacts, weapons, numerous decorative elements and fine examples of applied art carved from bone, cast in bronze, or modeled in clay were excavated. The anthropological material is in an excellent state of preservation (Novgorodova, Volkov, 1981). The Ulangom Cemetery can be placed among the Late Uyuk Culture. Recent studies show this culture covered northwestern Mongolia (Grach, 1980). Tuva itself is located in the main territory of the Uyuk Culture. Judging from the bones of domesticated animals found in Uyuk and Slab Grave cemeteries both cultures were typical of the early nomadic lifestyle with economies based on pastoralism.

A number of traits including burial rites and the specific variety of accompanying artifacts, but particularly the pottery and anthropological types, reveal that both the cist kurgan and the Ulangom Cemetery cultures differed radically from the Slab Grave Culture. One major difference is that the people of the Slab Grave Culture were typical Mongoloids belonging to the northern branch of the great Mongoloid race. Those of the Mungu-Taiga and Ulangom cultures were primarily Europoid with an insignificant admixture of Mongoloid traits (Mamonova, 1980).

The differences between the material culture, paleoanthropological material, and probably the ethnic heterogeneity of the eastern and western Mongolian populations indicate that during the Scytho-Saka Period the two populations were quite distinct. The differences cannot be explained entirely relating to the migration of tribes from the west to Mongolia during this time period. The similarity of the material cultures found in northwestern Mongolia, Tuva, the Altai region and eastern Kazakhstan is significant.

As mentioned previously, the Afanasievo-type populations found in the Altan Sandal and Shatar Chuluu burials at Khangai have Europoid skulls. The people belonged to one of the most eastern and most ancient groups of Europoid tribes to inhabit Inner Asia. They also contrast sharply with the Paleo-Asiatic groups found in the Late Neolithic or Eneolithic complexes of eastern Mongolia.[9] This leads to the conclusion that cultural and anthropological differences between two groups, one in eastern and the other in western Mongolia, appear to have developed at the onset of the Bronze Age.

New paleoanthropological data are also important in solving the so-called "Dinlin" question concerning Europoid populations in Central Asia. Attempts have made in the early 20th century to solve this question using obscure written sources. Today, new concrete facts are being accumulated which help to clarify this issue.

During the Early Iron Age certain differences existed between the material cultures and anthropological types of the populations living in eastern and western Mongolia. These differences are attributed to diverse ethnic populations that emerged at the dawn of the Bronze Age and who became progressively stronger during the Scytho-Saka Period. In spite of differences, the two ethnocultural populations had some traits and cultural elements in common. In both regions arrowheads were cast in the Scythian form. Psalia, bridle bits, and animal style art motifs are also similar to those items found in burials belonging to the Scythian population inhabiting the Black Sea area. They are also found in Central Asian Saka burials (Figs. 3-5). The *olenniye kamni*, the so-called deer-stone stelae with engraved depictions of characteristically stylized deer, were also a common element of the steppe zone cultures.

Although comparatively rare in Transbaikalia *olenniye kamni* are relatively widespread. Finds in recent years have pushed the eastern boundary into the Chita province of Mongolia. Similar to the Scythian triad which includes armament, horse harness sets, and animal style art, the *olenniye kamni* have not been connected with any specific culture. In eastern Mongolia, as in Transbaikalia, the stelae are frequently found as corner stones for slab graves. In the west they were included in the stone architectural kurgan complex which included a fence. In Tuva the sculptures are found standing near the Uyuk Culture kurgans. Forty sites with *olenniye kamni* have been recorded in Tuva, and more than 50 stelae were recently discovered in the Gorny Altai province in Siberia (Kubarev, 1979).

An occasional deer stone has been noted in Kyrgyzstan, in eastern and central Kazakhstan, and in the Russian Orenburg provence in the southern Ural Mountains (Ismagilov, 1988, p. 29). During the recent decades in the northern and central Caucasus a few sites have been recorded that

have stones which are a variation of the *olenniye kamni*. The stelae from Shipyak-Sanomer in southern Georgia give credence to the theory that *olenniye kamni* were also erected in the Transcaucasus. A few *olenniye kamni* are known from Olbia in the Black Sea region, in the Nikolaev province in the Dnieper River region, and in the Crimea. Two such stelae were recorded in the region of Dobrudja, northeastern Bulgaria (Toncheva, 1972). More than 15 such stones have been discovered in Europe and in the Caucasus. The western border for the *olenniye kamni* is at Seehauzen, Germany on the Elbe River (Olkhovsky, 1989, p. 48). *The olenniye kamni* that appear to be the chronologically closest, based on the illustrated weapon type, is the New Mordvinian stelae from the early Anan'ino Cemetery located near the city of Samara[10] in the middle Volga River region. The stelae in this region were discovered and studied by A. Kh. Khalikov (Khalikov, 1963, p. 180).

In summary, the most recent data indicate that the *olenniye kamni* are widespread over a vast territory stretching from the upper reaches of the Amur River in eastern Siberia to the Elbe River in the west (Map 19). The regions where the sculptures have been found also coincides with the "great steppe zone" of Eurasia. This indicates that the deer stones are very important for determining the historical routes followed by the early nomads.

Whether realistic or stylized all of the zoomorphic forms on the *olenniye kamni* are executed in the Scytho-Siberian animal style. The *olenniye kamni* are classified into two groups, those with zoomorphic depictions and, those without zoomorphic depictions. Both groups display all other iconographic motifs including necklaces, belts, and weapons. The stelae with zoomorphic depictions are further subdivided into two groups, those with realistic depictions and those with stylized zoomorphisms. Stelae without zoomorphisms are tentatively identified as Eurasian. These are frequently found in the eastern regions but the majority are found in the western region (Fig. 3). Because they are found predominantly in Mongolia and Transbaikalia, the stelae with stylized zoomorphic depictions are classified as Mongol-Transbaikalian (Fig. 4). Stelae with depictions of quite realistic zoomorphic forms are classified as Sayan-Altai type (Fig. 5).

Regardless of specific differences in the form and stylization, all anthropomorphic forms incised on the *olenniye kamni* are abstracted. Depictions of the human face are rare. The only realistic elements are the incised necklaces, the beads, and the fighting and festive belts with suspended weapons. The weapons are illustrated with particular care for detail. Daggers' pommels are annulated, mushroom-shaped, or depict animal heads such as the ram, horse or feline beast of prey. Other weapons include bows, the Scythian *gorytus* (quiver), the *akinakes* (short sword), the battle axe, and articles indispensable to the steppe warrior such as knives and whetstones. Some weapons are notable for their Karasuk stylization making it possible to date the stelae from the late 2nd to early 1st millennium B.C.

If the illustrated weapon is used to date the *olenniye kamni*, those that have both weapons and Scytho-Siberian animal style motifs probably appeared in Mongolia, Tuva, and in the Altai Mountains by at least the 9th to 8th centuries B.C. Those without such depictions may be older (Volkov, 1981).

In the west archaic complexes dating to the 8th-7th centuries B.C. also yielded Eurasian-type sculptures. These include stelae from a Cimmerian kurgan near Byelogorodetz village in Bulgaria. In a kurgan located near the Crimean village of Tzelinniy, the stelae are included in a complex dated to the Chernogorovskaya Stage. Another stele was found in a kurgan near the village of Gumarovo in the southern Ural Mountains. In Tuva, a fragment of Sayan-Altai type stele had been placed in the embankment of the famous Arzhan Kurgan which many researchers date to the 8th-7th centuries B.C. In the east more than 20 Mongol-Transbaikalian type *olenniye kamni* were in the

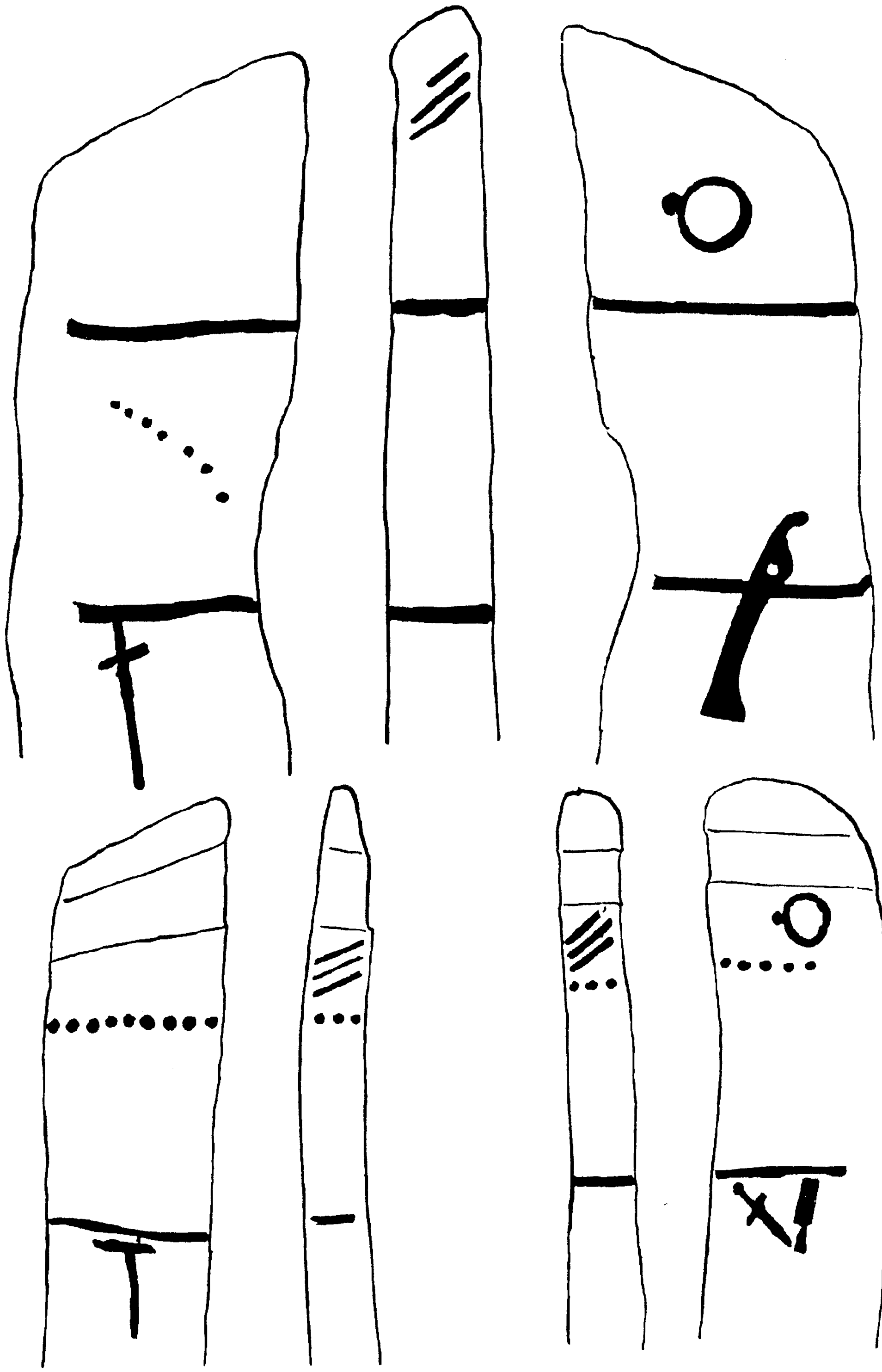


Fig. 3
Eurasian
olenniye
kamni

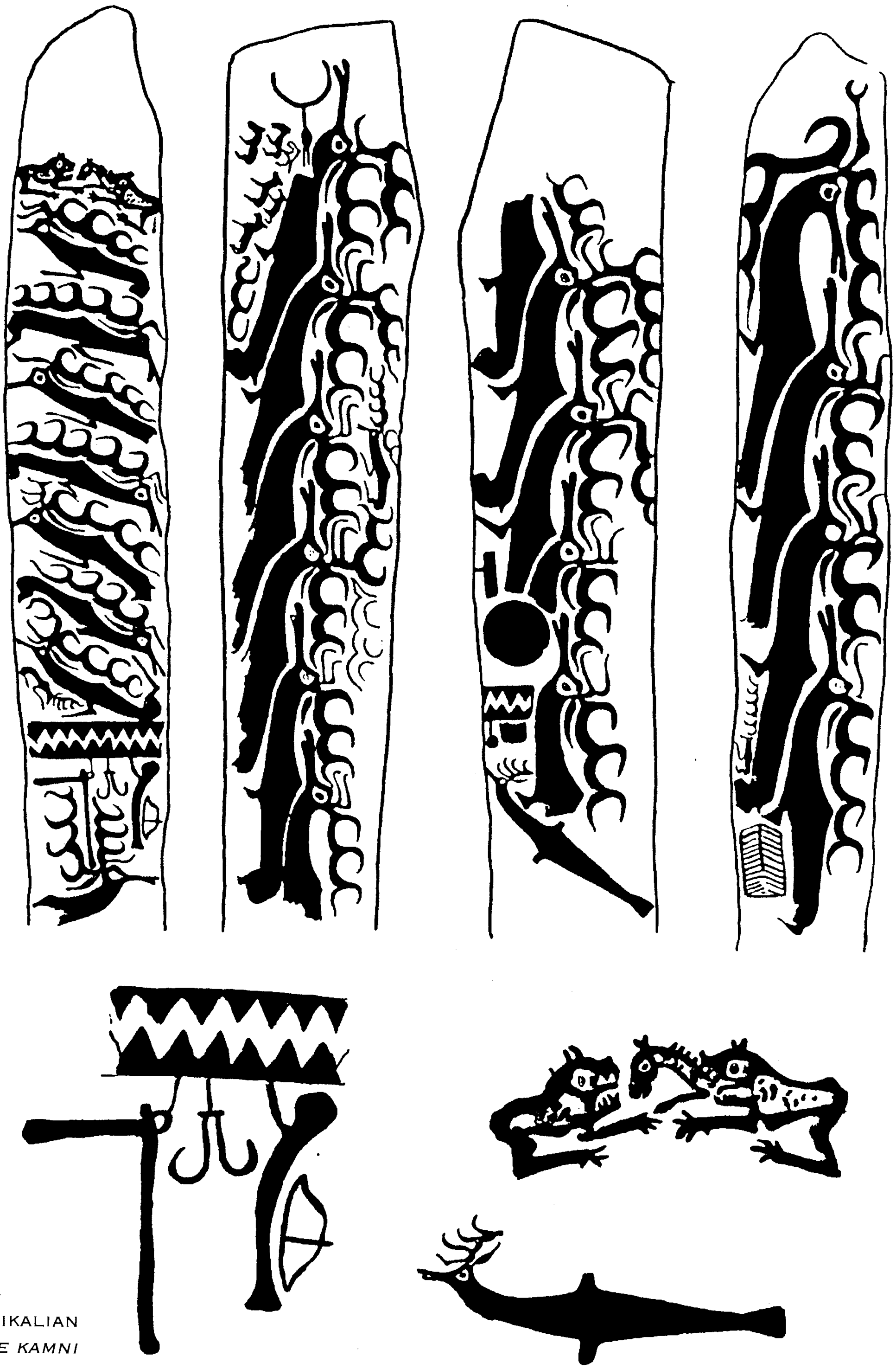


FIG. 4
MONGOL-
TRANSBAIKALIAN
OLENNIYE KAMNI

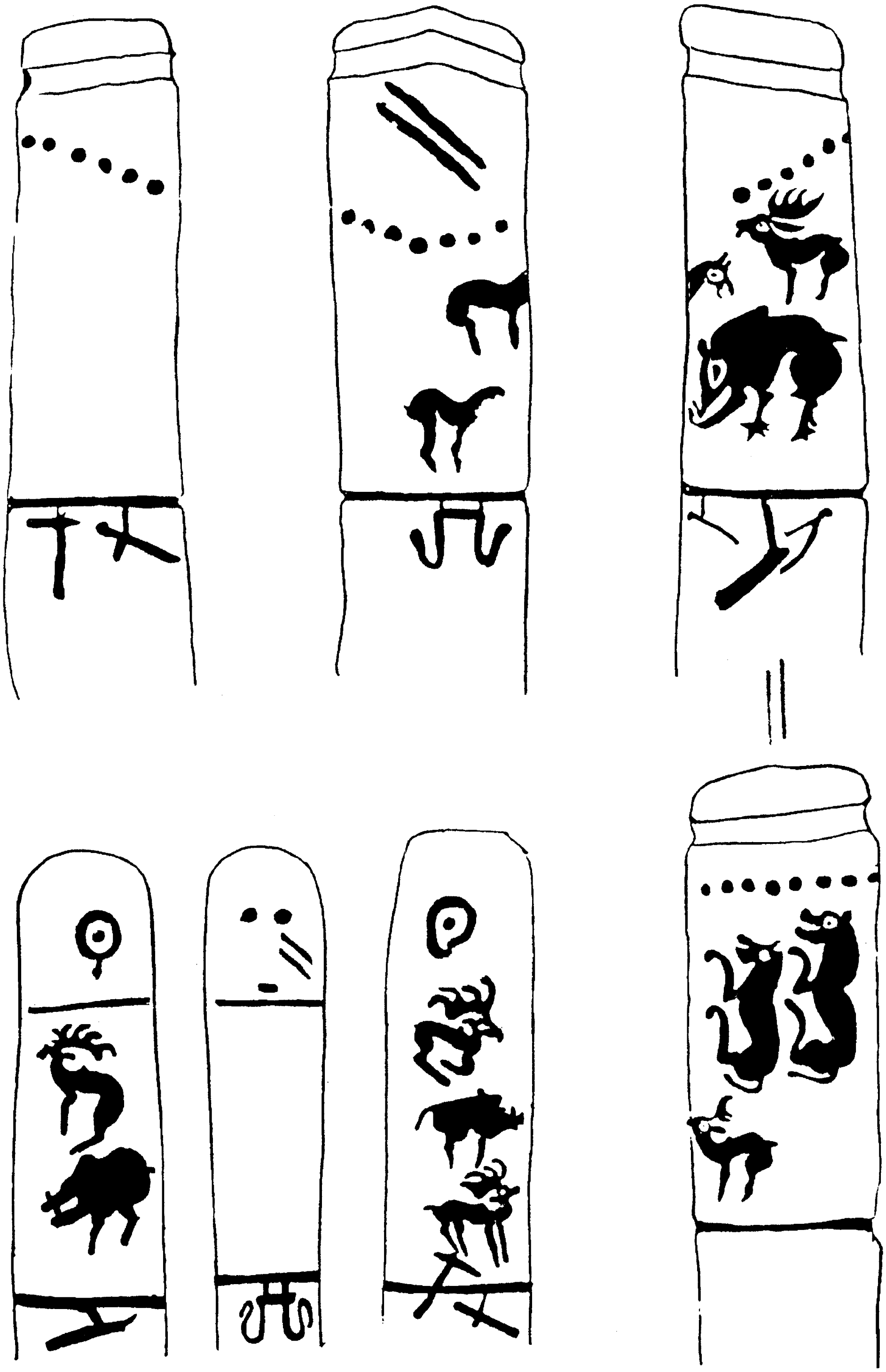


FIG. 5
SAYAN-ALTAI
OLENNIYE KAMNI

Zhargalant Mongolian sacrificial complex excavated in 1989-1990. On the basis of bronze spoon-shaped pendants and three-holed psalia similar to those excavated at the Arzhan Kurgan, the Zhargalant stelae should be dated not later than the 7th century B.C.

It is apparent that both in the east and in the west practically all types of *olenniye kamni* come from pre-Scythian period complexes. Depending upon the region, the dating for the *olenniye kamni* varies. In the west the time frame during which they were produced was narrower than in Central Asia and indirect data indicate they were carved during the 5th-4th centuries B.C.

The search for the origins of the stone carving technique and the unique iconography found on the stelae is important in the study of the *olenniye kamni*. They are the earliest monumental anthropomorphic sculptures in Mongolia. Many decorative elements and the method in which they are depicted may be traced to Bronze Age art. Although anthropomorphic sculptured images have been found earlier in the west in Yamnaya or Pit Grave Culture burials, the *olenniye kamni* seem to have been an innovative phenomenon. This is not true in Central Asia. In 6th century B.C. Scythia stone idol sculptures known as *baba* were executed in a style that scholars do not considered to be connected to the *olenniye kamni* style.[11]

Another important aspect in the study of the *olenniye kamni* is the question of the cultural and ethnic attributions of the sites where the stelae are found. N.L. Chlenova and later A.I. Terenozhkin classified the western sites where *olenniye kamni* have been documented as Cimmerian (Chlenova, 1975; Terenozhkin, 1976).

Connections between the North Black Sea region and the east during the Cimmerian Period have been discussed several times (N.L. Chlenova, M.N. Gryaznov, A.I. Terenozhkin). It was determined that the Karasuk cultural influence during the pre-Scythian Period was especially strong in the western Dandybai-Begazin Culture found in central Kazakhstan (M. Kh. Margulan, L.R. Kyzlasov). The Karasuk influences are also particularly noticeable in the Tagisken burials located in the eastern Aral Sea region (M.P. Gryaznov). Further west, Karasuk stylization is apparent in the depiction of a dagger with an annulated pommel. This weapon was carved on a Crimean stele from the village of Tselinniy (Korpusova, Belozor, 1980, p. 244).

While noting the discrepancy between the zoomorphic themes on the western stelae and the traditions of Cimmerian art, N.L. Chlenova explains the variations as a result of influence from the Kuban Culture. However, these theories have not met with support from other researchers.

The *olenniye kamni* with zoomorphic images executed in the Scytho-Siberian animal style belong to the east. There is little doubt that they represent the formative stages of the animal style and that they were created by early nomadic cultures. Although it seems convenient to place the western stelae within the range of the Scythian Period, it is not clear why the *olenniye kamni* were replaced in the 6th century B.C. by the Scythian *baba*. A possible explanation is offered by A.A. Iessen who wrote that, "there was no significant difference in the cultural development level of the historically known Cimmerians and the Scythians of that early period" and that "we can see that the creators of the 8th-7th centuries B.C. complexes in the pre-Caucasus steppe and those in the North Black Sea steppe were ancestors of both the 6th century B.C. Scythians and of the Cimmerians" (Iessen, 1954, p. 130).

The motifs found on the *olenniye kamni* reveal that nomadic pastoralism, technological achievements which include fighting chariots and saddle horses, and the vivid and original animal style art emerged earlier than has been previously believed. Artisans graphically visualized new forms. The rapid, dynamic contacts between cultural regions were conducive to the

intensified cultural integration. This in turn was the basis for the Scytho-Saka-Siberian unity within the early nomadic culture.

As the *olenniye kamni* illustrate, the ties were not limited to cultural contacts and intercultural exchange but were much deeper in character. Most likely, the Scytho-Saka-Siberian culture was preceded by a Karasuk-Cimmerian community which was evidently not expressed. This Karasuk community served as the foundation for the development of early nomadic cultures in the Eurasian great steppe belt.

The *olenniye kamni* became widespread at the point in time when the Karasuk-Cimmerian cultures were on the wane and the Scytho-Saka-Siberian culture was gaining momentum. The stone stelae graphically reflect the transformation of the steppe cattle breeding culture to an early nomadic culture. The archaeological monuments which have Karasuk traditions interwoven with the new ritual symbolism so characteristic of the Scytho-Saka-Siberian animal style art are probably unique. Although the *olenniye kamni* reveal the Central Asian roots for the Scytho-Saka-Siberian animal style art, the origins of this art style is not yet known. However, it is important to note that whatever the origin of the animal art style may be, it is a specific component of the 1st millennium B.C. nomadic cultures. The materials from the Arzhan Kurgan in Tuva are significant in determining these roots. Those artifacts combine traits which are precursors of the animal style art as well as those that are traditional animal style art dated to a later period. Pre-Scythian arrowhead types and bridle bits were found adjacent to the curling panther executed in the well-developed animal style.

Although specialists have not entirely agreed upon the dating of the Arzhan Kurgan, it is considerably earlier than the Scythian monuments from southern Russia. The Arzhan Kurgan is as old or perhaps older than the chieftain's burial in northern Iran which yielded the Ziwiye Treasure.[12] Some researchers have seen the beginnings of Scytho-Siberian art style in the Ziwiye Treasure (Artamonov, 1973, p. 219). The early date of Arzhan Kurgan, together with the *olenniye kamni* sculptures, requires scholars of the Early Iron Age to consider the possibility that eastern Central Asia was the origin, not only of the animal style art, but also of the entire Scytho-Saka-Siberian culture (Terenozhkin, 1976, p. 209)

Because the Karasuk cultural tradition was especially strong upon the stylization of the Mongolian *olenniye kamni*, the question is posed as to the origin of the Karasuk-type culture found in many Siberia and Central Asia regions. Some researchers feel that the origin of the Karasuk Culture and its influence upon the *olenniye kamni* are closely connected. It is probable that the solution of one depends upon the resolution of the other. Opinions have differed regarding the origins of the Karasuk Culture. M. Ler convincingly demonstrated that the alien nature of Karasuk-type artifacts in the Shan-Ihn complexes appeared to have been influenced by stylistic elements belonging to the Ordos Desert cattlebreeders. The hypothesis concerning Chinese sources for the Karasuk Culture should be regarded as inconsistent. Another hypothesis that the Karasuk Culture originated in southern Siberia has not been further developed because of the fact that the large amount of new materials from the southern Krasnoyarsk territory belie this theory. The point of view that the Near East was the source of the Karasuk Culture and that an intermediate cultural formation took place in Xinjiang, China, Afghanistan, and Mongolia does not seem to be convincing. Nevertheless, the hypothesis still remains.

Having emerged on the peripheries of the ancient civilization centers, the communities of nomadic cattle breeders became powerful military and political forces. Their blows destroyed Chinese principalities whose rulers, in protecting their possessions against nomadic incursions, began

building the Great Wall of China in the 3rd century B.C. During the period of the great migrations, the nomadic movement literally recarved the ethnic and political map of Asia and areas further to the west.

Olenniye kamni are the remnants of the material culture belonging to smaller and more ancient groups of cattlebreeders. The splendid artistic depictions reveal that the nomads achieved their own distinctive culture. As a result of contacts the originators of the *olenniye kamni* passed their art style on to the Scytho-Saka-Siberian peoples. The distinctive animal style motifs displayed on the *olenniye kamni* became an important contribution to the world's cultural and artistic treasures.

Notes

Chapter 20

Early Nomads of Outer Mongolia

1. Mongolia is today an independent country located north of Inner Mongolia. The latter region is under Chinese control. (Ed. note)
2. In keeping with its usage in Russia and Soviet geographical literature, the term Central Asia denotes the area which has no oceanic rivers and is defined in the north by the Altai and Sayan mountainous systems, the Himalayan and Tien Shan mountains in the west and southwest, and by the Bolshoi Hingan Mountains in the east.
3. The Gorny Altai is an autonomous region located adjacent to the northeastern Kazakhstan. (Ed. note)
4. Tuva is an autonomous region in Siberia north of western Mongolia. (Ed. note)
5. Transbaikalia is the region east of Lake Baikal and north of Mongolia. (Ed. note)
6. The Afanasievo Culture was named after the Afanasievskie Mountains located in southern Siberia where the first Afanasievo sites were excavated. (Ed. note)
7. See in this volume Southern Siberia in Scythian Times. (Ed. note)
8. In Mongolia the smaller political division is a sum (pronounced soom) and an aimag is the equivalent of a state division. (Ed. note)
9. These sites were excavated by the Soviet-Mongolian Expedition at Tamtsag-bulak and Norovlin Ule in eastern Mongolia (Dorzh, 1971, pp. 44-45).
10. Samara, located on the middle Volga River, was known as Kuibyshev during the Soviet Period. (Ed. note)
11. See in this volume Scythian Culture in the Crimea. (Ed. note)
12. Also known as the Sakkiz Treasure. (Ed. note)

Bibliographic abbreviations

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ADDIN	Avtoreferat dissertatsii na soiskanie uchenoi stepeni doktora istoricheskikh nauk. (Synopysis of Dissertations for Defending Scientific Degree of the Doctor of Historical Sciences)
ADKIN	Avtoreferat dissertatsii na soiskanie uchenoi stepeni kandiata istoricheskikh nauk.(Synopysis of Dissertations for Defending Scientific Degree of the Candidate of Historical Sciences)
AO	Arkheologicheskie otkrytiya (Archaeological Discoveries), Moskva.
AP	Arkheologichni pam'yatki Uk.S.S.R. (Archaeological Monuments of the (Ukrainian Soviet Socialist Republic), Kiev.
ASGE	Arkheologicheskii sbornik Gosudarstvennovo Ermitazha (Archaeological Collection of Articles of the State Hermitage),Leningrad.
ESA	Eurasia septentrionalis antique. Helsinki.
GAIMK	Gosudarstvennaya Akademiya istorii material'noi kul'tury. (State Academy of History of Material Culture)
GES	[Hydro-electric power station]
GMII	Gosudarstvennii musei izobrazitel'niikh iskusst im. A. S. Pushkina (State Museum of Fine Art Named A. S. Pushkin), Moskva.
IA RAN	Institut arkheologii Rossiiskoi Akademii nauk (Institute of Archaeology, Russian Academy of Sciences), Moskva.
IA AN U.S.S.R.	Institut arkheologii Akademii nauk Ukrainskoi S.S.R. (Institute of Archaeology, Ukraine Academy of Sciences
IN RAS	Institute of Archaeology, Russian Academy of Sciences
KSIA	Kratkie soobscheniya Instituta arkheologii AN S.S.S.R. (Short Reports of the Institute of Archaeology, Russian Academy of Sciences), Moskva.
KSIIMK	Kratki soobscheniya Instituta istorii material'noi kul'tury AN S.S.S.R. (Short Reports of the Institute of Material Culture of the Academy of Sciences of the USSR)
LOIA	Leningradskoe otdelenie Instituta arkheologii AN S.S.S.R. (Leningrad Division of the Institute of Archaeology, Academy of Sciences of the USSR)

MISKM	Materialy i issledovaniya Stavropol'skovo kraevovo myseya (Materials and Investigations of the Stravopol Area Museum), Stavropol'.
MGU	Moskovskii gosudarstvennyii universitet (Moscow State University), Moskva.
MKhE	Materialy Khorezmskoi ekspeditsii (Materials of the Khorezmian Expedition), Moskva.
OAK	Otchet Arkheologicheskoi komissii. SPb. (Report of the Archaeological Comission)
Otv. red.	editor-in-chief
Pg.	Petrograd
RAS	Russian Academy of Sciences
SA	Sovetskaya arkheologiya (Soviet Archaeology), Moskva.
SAI	Svod arkheologicheskikh istochnikov (Collection of Archeological Sources), Moskva.
SE	Sovetskaya etnografiya (Soviet Ethnography), Moskva.
T.	[volume]
Tr. GIM	Trudy Gosudarstvennovo istoricheskovo museya. (Works of the State Historical Museum), Moskva.
Tr. KAEE	Trudy Kirgizskoi arkheologo-etnograficheskoi ekspeditsii (Works of the Kirghizian Archaeological-Ethnographical Expediton), Moskva.
Tr. TKEE	Trudy Tuvinskoi kompleksnoi arkheologicheskoi ekspeditsii. Moskva. (Works of the Tuvinian Complex Archaeological-Ethnographical Expedition)
Tr. KhAEE	Trudy Khorezmskoi arkheologicheskoi ekspeditsii (Works of the Khorezmian Archaeological-Ethnographical Expediton), Moskva.
Tr. ChINII	(Works of the Chechen-Ingush Scientific Investigation Institute)
Uch. zap. TuvNIIYaLI	Uchenie zapiski Tuvinskovo instituta yazyka, literatury i istorii, Kyzyl. Scientific Notices of the Tuvinian Institute of Language, Literature, and History), Kyzyl.
UKAE	Uralo-Kazakhstanskaya arkheologicheskaya ekspeditsiya. (Ural-Kazakhstan Archaeological Expedition)
VDI	Vestnik drevnei istorii (Bulletin of Ancient History), Moskva.
VSSA	Voprosy skifo-sarmatskoi arkheologii (Questions of Scytho-Sarmatian Archaeology), Moskva.
Vyp.	(issue or installment)

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